The United Republic of Tanzania

Integrated Business Survey, 2010

Construction Industry Analytical Report

Tanzania Mainland

National Bureau of Statistics
Ministry of Finance
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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Page

ABBREVIATIONS AND ACRONYMS

CRB	Contractors Registration Board
DfID	Department for International Development
GDP	Gross Domestic Product
IBS	Integrated Business Survey
ISIC Rev 4	International Standard Industrial Classification of All Economic Activities, Revision 4
LDCs	Least Developed Countries
LPG	Liquefied Petroleum Gas or Liquid Petroleum Gas
NBS	National Bureau of Statistics
PEHCOL	Plant and Equipment Hire Company Limited
SMEs	Small and Medium Enterprises
SNA	Strengthening of National Accounts
UN	United Nations
TShs	Tanzania Shillings
TSIP	Transport Sector Investment Programme
URT	United Republic of Tanzania
VAT	Value Added Tax
GVA	Gross Value Added

FOREWORD

The 2010 Integrated Business Survey (IBS) supplements the existing data on Construction Industry and Distributive Trade Sectors and measures their performances and contributions to the economic growth.

The main objective of the Integrated Business Survey (IBS) was to measure the performance of Construction and Distributive Trade Sectors. The specific objectives of the survey were to provide information on the number and geographical locations of construction and distributive trade establishments and to get estimates from contribution of construction and distributive trade activities to the Gross Domestic Product. The survey also aimed at providing data on the type and flow of goods and services for evidence based planning and inform decision making in this sector.

The survey activities were performed under the guidance of the NBS's Director of Economic Statistics assisted by two Departmental Managers, two project desk officers and six statisticians. The project was conducted through the collaboration of two departments namely; Industry and Construction Statistics and Trade, Transport and Tourism Statistics. These constituted the core technical committee of the project which was centrally responsible for all survey activities. The Regional Statistical Managers were responsible for data collection management.

I sincerely thank all business owners who were contacted and provided data during the survey. I wish to extend special thanks to regional and local government authorities for providing the necessary logistical support in their respective areas. Finally, I wish to thank all Development Partiner's (DP's) especially the DfID for funding the survey and extend my cordial thanks to members of the core Technical Team for their tireless efforts which resulted in carrying out the activities timely and successfully.

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EXECUTIVE SUMMARY

The construction industry is among the fast growing sector in the Tanzanian economy. This sector is currently experiencing a period of growth primarily driven by the development in the roadwork, housing and mining industries. In this regard, it is important that accurate information to measure its performance and contribution to the economy is collected, analysed and made available to all users. The 2010 IBS, therefore, is a necessary effort and an important step in supplementing the existing data for both sectors under this study and measuring their performances and contributions to the economy.

The main objective of the 2010 Integrated Business Survey was to measure performance of key indicators of the construction and trade sectors of the economy. The information collected was used in the compilation of Gross Domestic Product (GDP).

Key Findings

Characteristics of Enterprises

- A total of 4,587 contractors were operating in 2010 of which 477 were large contactors and 4,110 were small contactors.
- A total of 477 large contractors whereby 100 (21 percent) were in class one, 60 (12.6 percent) were in class two, 154 (32.3 percent) were in class three and 163 (34.2 percent) contractors were in class four.
- A total of 4,110 were small contractors of which 767 (18.7 percent) were in class five, 1,064 (25.9 percent) were in class six, and 2,278 (55.4 percent) were in class seven.

Employment and Labour Market

- A total of 109,879 persons were engaged in construction industry of whom 20,215 persons (18.4 percent) were in large constructors and 89,664 persons (81.6 percent) were engaged in small constructors
- Private limited companies (both large and small) engaged more persons (13,629 persons or 67 percent in large contractors and 45,374 persons or 50.6 percent in small contractors).
- The proportions of females engaged in construction sector are relatively low compared to males.

Labour Costs

- Large contractors had a total labour cost of TShs 71,211,384 thousand, equivalent to 41.2 percent of the total construction sector labour cost.
- Small contractors had a total labour cost of TShs 101,452,977 thousand, equivalent to 58.8 percent of total construction labour costs.

- Wages and salaries paid to employees or workers constituted the largest share of the contractors' labour costs.

Construction Costs

- The total construction costs incurred by contractors were Tshs 1,277,394,352 out of which TShs 862,465,210 incurred by large contractors and TShs 414,929,142 incurred by small contractors.

Receipts and Value Added

- Total receipts (excluding VAT) of TShs 1,149,990,163 thousand were realized in construction activities by large contractors, and total receipts of TShs 904, 166,090 thousand were received by small contractors.
- Total value added in the construction industry was TShs 1,187,348,679 thousand of which, large contractors contributed TShs 698,111,731 thousand (59 percent) while small contractors contributed TShs 489,236,948 thousand (41 percent).

Recommendations

- There is a need to improve government Ministries, Departments and Agencies (MDA) delivery capacities. Government should carry initiatives by several institutions engaged in construction industry through financing facilities for the construction sector enterprises to access working capital in terms of credit, bonds, guarantees, training funds, and capital for tools and equipment.

- Government through Public - Private Partnership (PPP) should Support and facilitate transformation of micro and small scale construction to formal small and medium scale construction firms.

- The study recommends the need to encourage, enable and improve the performance of the informal construction sector. This is a possible means by which the industry might be somewhat stabilized, for this makes construction a continuous rather than a project-oriented process. Support and facilitate transformation of micro and small scale construction to formal small and medium scale construction firms. This starts by recognizing and promoting the useful existence of the informal construction sector as an integral part of the construction industry.

Organisation of the report

The report presents the construction industry according to the UN recommendations (2008) with the following divisions: Construction of Buildings, Construction of Civil Engineering

Works and Specialized Construction Activities. In total, there were 4,587 contractors which were in operation during the reference year (2010) of which 477 were large contractors and 4,110 were small contractors. Tables referring to such information are integrated within the section giving the major findings. The tables therefore refer to the respondents only as indicated therein.

CHAPTER ONE

BACKGROUND

1 Introduction

The National Bureau of Statistics (NBS) is mandated to collect, process, analyze and publish official statistics in the country. This mandate is executed through the conduct of censuses and surveys, as well as the use of administrative records. This is an Analytical Report of the Integrated Business Survey (IBS) 2010 which covers Construction activities in Tanzania Mainland.

The construction industry in Tanzania Mainland is among the fast growing sectors but lacks information or data to accurately measure its performance and contribution to the economy, (URT, Economic Surveys). This is mainly attributed to lack of regular surveys into this sector. The first and the only survey which covered both construction and trade activities was conducted in 1994 under the project referred to as Strengthening of National Accounts (SNA). However, due to inadequate financial resources, the SNA survey was confined to only ten regions of Tanzania Mainland. The SNA 1994 survey covered three sectors which are transport, trade and construction and focused on pure urban wards only. The IBS 2010 therefore, is a necessary effort and an important step in supplementing the existing data for both sectors under this study and measuring their performances and contributions to the economy.

Chapter One presents the performance of the construction sector and discusses the history of business surveys as well as their objectives, concepts and definitions used. The concepts used are in line with the international standards so as to facilitate comparison with other countries, (UN, 1997 and DESA, 2008).

1.1 Construction Sector Performance

1.1.1 Main Construction Activities

The construction industry is a sector of the economy that uses various resources to construct physical, economic and social infrastructure necessary for socio-economic development. It embraces the process by which the said physical infrastructure is planned, designed, procured,

constructed or produced, altered, repaired, maintained, and demolished. The constructed infrastructure include; buildings, transportation systems and facilities which are airports, harbours, highways, subways and bridges; railroads, transit systems, pipelines, transmission and power lines, structures for fluid containment, control and distribution such as water treatment and distribution, sewage collection and treatment systems; sedimentation lagoons, dams, irrigation and canal systems and underground structures, such as tunnels and mines.

1.1.2 Institutional and Organizational Framework

The construction industry comprises formal and informal organizations and persons such as companies, firms and individuals working as consultants, main contractors and sub-contractors, material and component producers, plant and equipment suppliers, builders and merchants. The industry has a close relationship with clients and financiers. The government is involved in the industry as consumer or purchaser (client), facilitator, promoter, financier, regulator and operator.

1.1.3 Contribution to GDP

Table 1.1 shows the Tanzania Mainland real output performance as percentage contribution to the real Gross Domestic Product (GDP) during the 2003-2010 period. The Table shows that agricultural sector is still the dominating economic sector in Tanzania Mainland followed by trade service sector. The construction industry is an important contributor to GDP in the Tanzanian economy and plays a major role in determining economic growth. In volume terms, the construction industry accounted for an average of 6.8% of GDP in the 2003-2010 period. The industry experienced eight consecutive years of high growth as a proportion of GDP. In 2010 the construction industry employed 9.1% of the formal workforce, making it Tanzania's fourth largest industry. The construction industry caters for both private and public sectors, engaging three broad areas of activity; residential building, non-residential building and engineering construction. Demand for and supply of these services are driven by economic factors including population growth and consumer confidence, changes in interest rates and inflation. Most recently, government policies affecting financing, housing and infrastructure projects have been an influence. The availability of resources, such as capital equipment,

machinery, labour and building materials, and changes within closely linked sectors (e.g. agriculture, manufacturing, mining and service), also drive changes in the economy.

Table 1.1: Real Output Performance (Percentage Contribution to Real GDP), 2003-2010

Industrial Activity	2003	2004	2005	2006	2007	2008	2009	2010
Agriculture	29.0	28.5	27.7	26.9	26.1	25.4	24.7	24.0
Fishing	1.8	1.8	1.7	1.7	1.7	1.6	1.6	1.5
Mining and quarrying	2.2	2.4	2.6	2.8	2.9	2.8	2.6	2.5
Manufacturing	9.1	9.2	9.4	9.6	9.7	9.9	10.1	10.2
Electricity	2.8	2.7	2.8	2.6	2.6	2.6	2.6	2.7
Construction	6.2	6.5	6.6	6.8	6.9	7.1	7.2	7.4
Wholesale and retail trade	14.3	14.0	13.9	14.3	14.6	15.0	15.2	15.3
Hotels and restaurants	2.8	2.7	2.7	2.6	2.5	2.5	2.4	2.4
Transport and communication	7.0	7.2	7.3	7.4	7.6	7.8	8.2	8.6
Financial intermediation	1.7	1.7	1.8	1.9	1.9	2.0	2.1	2.1
Real estate	10.9	10.8	10.8	10.8	10.8	10.8	10.8	10.8
Public administration	7.8	8.2	8.5	8.5	8.5	8.4	8.3	8.2
Education	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9
Other services	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: Quarterly Gross Domestic Product of Tanzania Mainland, First Quarter 2012

1.1.4 Construction Sector's Problems, Limitations and Challenges

Table 1.2 shows that the average real rate of output growth of the construction sector was about 10.5 percent, the second sector with highest growth rate. The first sector with the highest real economic growth was telecommunication and communication sector. However, the sector is faced with various complex factors, constraints and limitations. There are a limited number of professionals, low technology and poor economy. The country as a whole depends mostly on foreign institutions to train her indigenous professionals, contractors and consultants needed to execute big projects, for instance, highway construction and complex buildings. However, there is a need for local contractors to get more support from the government or financial institutions that would enable them to develop and compete in the industry.

Table 1.2: Real Output Performance (Growth Rate in Percentage), 2003-2010.

Industrial Activity	2003	2004	2005	2006	2007	2008	2009	2010	Average
Agriculture	3.1	5.9	4.3	3.8	4	4.6	3.2	4.2	4.1
Fishing	6	6.7	6	5	4.5	5	2.7	1.5	4.7
Mining and quarrying	17.1	16	16.1	15.6	10.7	2.5	1.2	2.7	10.2
Manufacturing	9	9.4	9.6	8.5	8.7	9.9	8	7.9	8.9
Electricity	6.7	7.1	8.5	-0.5	10.1	5.6	7.9	11.7	7.1
Construction	13.8	13	10.1	9.5	9.7	10.5	7.5	10.2	10.5
Wholesale and retail trade	9.7	5.8	6.7	9.5	9.8	10	7.5	8.2	8.4
Hotels and restaurants	3.2	3.6	5.6	4.3	4.4	4.5	4.4	6.1	4.5
Transport and communication	7.1	10.5	9.4	8.6	10.1	10.8	23.1	12.2	11.5
Financial intermediation	10.7	8.3	10.8	11.4	10.2	11.9	9	10.1	10.3
Real estate and business services	6.5	6.8	7.5	7.3	7	7.1	6.8	7	7.0
Public administration	9.6	13.6	11.4	6.5	6.7	7	4.4	6.5	8.2
Education	2.8	4	4	5	5.5	6.9	7.1	7.3	5.3
Other services	6	6	6.1	6.8	6.9	7	5.6	5.8	6.3

Source: Quarterly Gross Domestic Product of Tanzania Mainland, First Quarter 2012

Specifically, construction industry in Tanzania Mainland is faced with the following problems and challenges, (CRB, 2008):

- Inadequate institutional co-ordination of planning between construction industry and other sectors of the economy;
- Inadequate fiscal and non-fiscal incentives and motivation of workers;
- Inadequate members of skilled, qualified and experienced personnel;
- Inadequate working capital for family firms and building sub-sectors; and
- The Government as main investor is having few public consultants and contracting organizations.

1.1.5 Informal Construction Sector Issues

A substantial part of the Tanzanian construction work takes place in the informal micro and small scale private sector of the industry. The informal construction sector is comprised of unregulated and unprotected individuals engaged in economic activities that include the supply of labour, materials and building components to the formal construction sector. It also includes

works carried out by individuals and groups on self-help basis without sub-contracting, (URT, 2003 and CRB, 2008). Through business linkages, partnerships and subcontracting relationships, SMEs have great potential to complement large industries requirements. Since SMEs tend to be labour-intensive, they create employment opportunities at relatively low levels of investment per job created. SMEs tend to be more effective in the utilization of local resources using simple and affordable technology, (Mlinga and Lema, 2001) and URT, 2002). Furthermore, SMEs technologies are easier to acquire, transfer and adopt. SME owners tend to show greater resilience in the face of recessions by holding on to their businesses, as they are prepared to temporarily accept lower compensation. Also, SMEs serve as a training ground for entrepreneurship and managerial development and enable motivated individuals to find new avenues for investment and expanding their operations

1.1.6 Size of the Construction Sector

The construction industry in Tanzania Mainland is characterized by formal and informal micro, small and medium scale contractors. The majority of enterprises in the construction industry in Tanzania are micro and small scale with a few of them being in the medium category. Small and medium contractors are very diversely organized and sometimes formal groups are scattered throughout the country. These are responsible for the creation of employment, income and economic growth.

In Tanzania Mainland, contractors are classified according to the Contractors Registration Act No. 17 of 1997, into 7 classes, that is; Classes I – VII, Class I being the highest. In 2010, the number of registered contractors was 4,587. Classes V - VII are limited to projects whose value does not exceed Tshs 450 million (approximately $375,000) for a single project. In 2007 and in terms of value, the market share for local contractors was 30 percent compared to 70 percent for foreign contractors. However, the local contractors' accounted for about 94 percent of the total contractors registered in the country. This situation does not provide a conducive environment for the development of local contractors and contracting capacity. The challenge is how to create a sustainable national contracting capacity for such a large number of small contractors realizing small share in terms of monetary value, while few but large foreign contractors dominate the industry in terms of monetary value.

1.2 Objectives of the Integrated Business Survey

The main objective of the 2010 Integrated Business Survey (IBS) was to measure performance of key indicators of the construction sector of the economy. The information collected was to be used in the compilation of national accounts aggregates such as Gross Domestic Product (GDP).

More specifically, the survey was conducted to

(i) Obtain information on the number and geographical distribution of construction establishments.

(ii) Estimate the number of persons engaged in the sector;

(iii) Obtain data on the type and flow of goods and services in order to allow policy formulation or policy change to strengthen the sector;

(iv) Get estimates on the contribution of the construction establishments to GDP.

(v) Get information on the effectiveness of the existing economic policies on the sector; and

(vi) Obtain data that could be helpful in formulating socio-economic policies, plans and programmes.

1.3 Definitions and Detailed Structure of Construction Industry

Construction includes general construction and specialized construction activities for buildings and civil engineering works, (UN, 2008). It includes new work, repair, additions and alterations, the erection of pre-fabricated buildings or structures on the site and also construction of a temporary nature. General construction is the construction of entire dwellings, office buildings, stores and other public and utility buildings, farm buildings etc, or the construction of civil engineering works such as motorways, streets, bridges, tunnels, railways, airfields, harbours and other water projects, irrigation systems, sewerage systems, industrial facilities, pipelines and electric lines, sports facilities, etc. This work can be carried out on own account or on a fee or contract basis. Portions of the work and sometimes even the whole practical work can be sub-contracted out. A unit that carries the overall responsibility for a construction project is classified here. Also, included is the repair of buildings and engineering works.

Basically, Construction Industry is classified into the following divisions, (UN, 2008): Construction of Buildings (Division 41), Construction of Civil Engineering Works (Division 42), and Specialized Construction Activities (Division 43).

The renting of construction equipment with operator is classified with the specific construction activity carried out with this equipment. Construction industry also includes the development of building projects for buildings or civil engineering works by bringing together financial, technical and physical means to realize the construction projects for later sale. If these activities are carried out not for later sale of the construction projects, but for their operation (e.g. renting of space in these buildings, manufacturing activities in these plants), then the unit would not be classified here, but classified according to its operational activity, i.e. real estate, manufacturing etc.

Division 41: Construction of buildings

Division 41 of construction industry includes general construction of buildings of all kinds, (UN, 2008). It also includes new work, repair, additions and alterations, the erection of pre-fabricated buildings or structures on the site as well as construction of temporary nature. This division also includes the construction of entire dwellings, office buildings, stores and other public and utility buildings, farm buildings, etc. It also includes the construction of complete residential or non-residential buildings, on own account for sale or on a fee or contract basis. Outsourcing parts or even the whole construction process is possible. If only specialized parts of the construction process are carried out, the activity is classified in division 43.

Division 42: Civil Engineering

Division 42 of construction industry includes general construction for civil engineering objects, (UN, 2008). It also includes new work, repair, additions and alterations, the erection of pre-fabricated structures on the site and also construction of temporary nature. Civil engineering also includes the construction of heavy constructions such as motorways, streets, bridges, tunnels, railways, airfields, harbors and other water projects, irrigation systems, sewerage systems, industrial facilities, pipelines and electric lines, outdoor sports facilities, etc. This work can be carried out on own account or on a fee or contract basis. Portions of the work and sometimes even the whole practical work can be subcontracted out.

Specifically, construction of roads and railways includes construction of motorways, streets, roads, other vehicular and pedestrian ways; surface work on streets, roads, highways, bridges or tunnels, (UN, 2008): asphalt paving of roads; road painting and other marking; installation of crash barriers, traffic signs and the like; construction of bridges, including those for elevated highways; construction of tunnels; construction of railways and subways and construction of airfield runways. Likewise, construction of utility projects includes the construction of distribution lines and related buildings and structures that are integral part of these systems.

This class includes; construction of civil engineering constructions for: long-distance pipelines, communication and power lines; urban pipelines, urban communication and power lines; ancillary urban works; water main and line construction; irrigation systems (canals) and reservoirs

Division 43: Specialized Construction Activities

Division 43 of construction industry includes specialized construction activities (special trades), i.e. the construction of parts of buildings and civil engineering works without responsibility for the entire project, (UN, 2008). These activities are usually specialized in one aspect common to different structures, requiring specialized skills or equipment, such as pile driving, foundation work, carcass work, concrete work, brick laying, stone setting, scaffolding, roof covering, etc.

Specialized construction activities also include the erection of steel structures, provided that the parts are not produced by the same unit. These activities are mostly carried out under subcontract, but especially in repair construction it is done directly for the owner of the property. The division also includes building finishing and building completion activities. Moreover, division 43 of construction industry includes the installation of all kind of utilities that make the construction function, (UN, 2008). These activities are usually performed at the site of the construction, although parts of the job may be carried out in a special shop. Included are activities such as plumbing, installation of heating and air-conditioning systems, antennas, alarm systems and other electrical work, sprinkler systems, elevators and escalators, etc. Also included are insulation work (water, heat, and sound), sheet metal work, commercial refrigerating work, the installation of illumination and signaling systems for roads, railways, airports, harbors, etc. Also included is the repair of the same type as the above-mentioned activities.

Building completion activities and encompass activities that contribute to the completion or finishing of a construction such as glazing, plastering, painting, floor and wall tiling or covering with other materials like parquet, carpets, wallpaper, etc., floor sanding, finish carpentry, acoustical work, cleaning of the exterior, etc. Also included is the repair of the same type as the above-mentioned activities.

The renting of construction equipment with operator is classified with the associated construction activity, (UN, 2008). The demolition and site preparation includes activities of preparing a site for subsequent construction activities, including the removal of previously existing structures. The site preparation includes the preparation of sites for subsequent construction activities. This class includes clearing of building sites; earth moving; excavation, landfill, leveling and grading of construction sites, trench digging, rock removal, blasting, etc.; drilling, boring and core sampling for construction, geophysical, geological or similar purposes

1.4 Methods and Approaches

The main research methods and approaches included organization; planning, design and concept paper preparation; piloting; refinement of survey instruments; up-dating sampling frame; sample design; recruitment and training of trainers (TOT); training of supervisors and enumerators; field survey; data processing and management; data editing and coding, data entry, validation, tabulation and analysis; main investigation variables and statistical indicators; statistical packages (CSPro, MS access, MS excel and MS word); data files and backup systems; report writing; national stakeholders workshop and dissemination/ publication.

1.5 Organizational and Institutional Framework

The research survey methodologies, approaches and activities of the IBS were directly under the management of the Director General of the National Bureau of Statistics. The Director General was supported by the Director of Economic Statistics and two departmental managers, two project desk officers and six statisticians. The project was conducted through the collaboration of two departments namely; Industry and Construction Statistics and Trade, Transport, Tourism Statistics. The regional statistical managers were responsible for data collection management.

To ensure effective planning and execution of the survey, a strong core technical team made up of NBS permanent staff under the Director of Economic Statistics and two departmental managers of Industry and Construction Statistics and Trade, Transport, Tourism Statistics was formed. The team was centrally responsible for all survey activities such as planning and administration, design of instruments, field work operations, data processing, report writing and dissemination of the results.

In addition to the NBS core technical team, a wider Technical Committee was also formed constituting senior members from key stakeholders such as the Ministry of Lands, Housing and Human Settlements Development; Ministry of Infrastructure Development; Prime Minsters Office, Regional Administration and Local Government; Ministry of Industry Trade and Marketing, Ministry of Finance, Registrar of Companies, National Construction Council, The Registration Board of Contractors, etc. This institutional arrangement aimed at facilitating joint participation and ownership by the key stakeholders and ensuring that planning and execution of the survey meet the needs of stakeholders. The Technical Team was also responsible for monitoring and evaluation progress of the survey.

1.6 Limitations of the Survey

It is important to discuss the problems and limitations encountered at all levels from designing to implementation of the survey. The identification and detailed explanations of these limitations intend to benefit future surveys.

In order for different stakeholders to understand objectives of the IBS, the concept paper provided highlights on the importance of the survey. The concept paper which was based on the stakeholders' views was done by consultants. The financiers were willing to finance the survey after receiving the pilot survey report. The pilot survey was done on a sample basis covering only Dar es Salaam region.The main challenge faced during the pilot survey was to identify the sampled establishments. Furthermore, it was found that some of these establishments lacked permanent physical addresses, while some of them changed location and nature of activities; as a result, it was difficult to cover all the selected establishments. The initial work plan was delayed due to some constraints encountered in the process of fund disbursement.

The IBS was one of the surveys jointly conducted by several parties. The survey results comprise a comprehensive data set, which the parties as well as other users can use. However, the users are cautioned that, the survey had other specific limitations as listed below:

(a) By the very nature of the sector, in developing countries including Tanzania, there is a large number of micro, un-organized/informal sector construction activities taking place.

(b) The survey was conducted according to the international recommendations by UN Systems. The tendency among small and medium scale construction enterprises to conceal information relating to outputs and over reporting on inputs due to the mistaken belief that information supplied is transmitted to the income tax authorities were apparent. Regular conduct of such surveys would help in dissipating this fear and thus improve the quality and reliability of the information supplied.

(c) A number of contractors were engaged in several equally important but dissimilar activities. Because of non-availability of separate records, these contractors were classified according to the activity with the highest output value. Figures relating to a particular ISIC group might, therefore, include data for other secondary activities as well.

(d) Many contractors could not provide detailed information for certain items such as consumption of electricity, water and fuels separately; purchase of raw materials and sales from own production by main product; values of stocks as well as values of fixed assets by type; others did not provide information on the level of stocks and assets. As a result, these and other missing data had to be estimated.

The IBS construction report includes tables on sales and purchases by product category of a few surveyed firms. These tables should however, be used with caution since many contractors did not report such details.

The above limitations, however, have no serious effect on the overall quality and reliability of the results. Statistics presented in this report reflect the current status and structure of the surveyed contractors in the construction sector. The government, UN, DfID, business community and other users can make good use of these results, which constitute the only available set of information based on international recommendations for industrial statistics. When making use of the construction survey results in certain statistical/economic analysis, users have only to keep in mind the above limitations.

CHAPTER TWO

CHARACTERISTICS OF ENTERPRISES IN CONSTRUCTION INDUSTRY

2 Introduction

This chapter presents basic characteristics of construction industry in Tanzania Mainland for the year 2010 for monitoring and evaluation purposes. The chapter also presents general background information such as activities of contractors, class of contractors, ownership, and equity participation for national and foreign ownership. In this survey the construction enterprises are classified according to ISIC Rev 4 (UN, 2008).

The sector is governed by the construction policy of 2003 and several pieces of legislation including, Public Procurement Act No. 21 of 2004, Engineers Registration Act No. 15 of 1997, Architects and Quantity Surveyors Registration Act No. 16 of 1997, Contractors Registration Act No. 17 of 1997, National Construction Council Act No. 20 of 1979, Professional Surveyors Registration Act No. 2 of 1977 and Tanzania Bureau of Standards Act No. 3 of 1975. All these documents provide rules for monitoring and evaluation of the construction sector in Tanzania mainland.

2.1 Number of Contractors by Activity

Table 2.1 presents the number of large and small contractors and their respective distributions by activity. A total of 4,587 contractors were operating in 2010 of which 477 were large contactors and 4,110 were small contactors.

The construction of buildings activity had the largest number of enterprises in both large and small contractors. Among large contractors this activity accounted for 153 enterprises (32.1 percent) and for small contractors it accounted for 1,671 enterprises (40.7 percent). The second activity with largest number of enterprises in the large contractors' category was electrical, plumbing and other construction installation activities with 110 enterprises (23.1 percent) followed by construction of other civil engineering projects with 97 enterprises (20.3 percent).

For small contractors, the second activity with largest number of enterprises was construction of other civil engineering projects with 1,324 enterprises (32.2 percent) followed by electrical, plumbing and other construction installation activities with 528 enterprises (12.9 percent).

The number of small contractors has been increasing over time, (Mlinga and Lema, 2001). There are two types of small scale operators. The first type or group is composed of informal micro and small scale operators. The second group is composed of formal small and medium scale operators.

Table 2.1: Number of Enterprises by Type of Contractor and Activity, 2010

ISIC Rev 4	Construction Activity	Large Contractors		Small Contractors			
				Weighted		Unweighted	
		Number	(%age)	Number	(%age)	Number	(%age)
410	Construction of buildings	153	32.08	1,671	40.66	342	39.31
421	Construction of roads and railways	29	6.08	234	5.69	43	4.94
422	Construction of utility projects	1	0.21	3	0.07	1	0.11
429	Construction of other civil engineering projects	97	20.34	1,324	32.21	270	31.03
431	Demolition and site preparation	1	0.21	6	0.15	2	0.23
432	Electrical, plumbing and other construction installation activities	110	23.06	528	12.85	137	15.75
433	Building completion and finishing	5	1.05	28	0.68	9	1.03
439	Other specialized construction activities	81	16.98	316	7.69	66	7.59
4	**Total**	**477**	**100.00**	**4,110**	**100.00**	**870**	**100.00**

The informal micro and small scale construction sector comprises of unregulated individuals and enterprises engaged in economic activities in construction involving the supply of labour, production of building materials and building components, (URT, 2003). It is also involved in the production of buildings - without the involvement of contractors - directly in response to client needs.

The informal micro and small scale construction sector has a great role to play in the development of the formal construction industry and the economy - particularly with regard to employment creation and supply of houses in rural and urban areas. It supplies building materials and labour to the formal sector through sub-contracting arrangements, (Mlinga and Lema, 2001). On the other hand, the formal sector acts as one of the outlets of the output of the informal construction sector.

This symbiotic relationship makes the promotion of the informal micro and small scale construction sector a growing necessity in the context of the overall national economic policies and with regard to the effective performance of the construction industry, (Mlinga and Lema, 2001 and URT, 2002). It is, however, beset by a number of constraints, which negate its effective contribution. Such constraints include lack of adequate skills, lack of capital, prohibitive regulations, and insecure operating environment.

2.2 Number of Contractors by Activity and Class

According to the Contractors Registration Board (CRB), large contractors cover all contractors in classes 1 to 4 while small contractors are those in classes 5 to 7 (Table 2.2(a)). This sector is important as it can transform various physical resources into constructed physical economic and social infrastructure necessary for socio-economic development.

There are five main divisions comprising of civil, building, mechanical, electrical and specialist. The first four divisions are divided into seven classes (Class I to VII) each but the specialist division is divided into three classes only (Table 2.2(a)).

Table 2.2 (a): Class Limit for Any Single Contract

(Million Tshs)

Class	**Civil**	**Building**	**Mechanical**	**Electrical**	**Specialist**
One	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
Two	5,000	3,000	2,000	2,000	400
Three	3,000	2,200	1,200	1,200	150
Four	1,500	1,200	600	600	-
Five	750	600(1)	300	300	-
Six	300	200(2)	150	150	-
Seven	150	120(3)	75	75	-

Note:

(1) Class Five are restricted to 4 storey structures

(2) Class Six are restricted to 3 storey structures

(3) Class Seven are not allowed to build storey buildings

Table 2.2(b) shows the number of contractors by class and activity for both large and small. The survey results revealed a total of 477 large contractors whereby 100 (21 percent) were in class one, 60 (12.6 percent) were in class two, 154 (32.3 percent) were in class three and 163 (34.2 percent) contractors were in class four. Furthermore, a total of 4,110 were small contractors of which 767 (18.7 percent) were in class five, 1,064 (25.9 percent) were in class six, and 2,278 (55.4 percent) were in class seven.

In the construction of buildings activity, the survey results show that there were a total of 153 large contractors with 27 (17.6 percent) in class one, 19 (12.4 percent) in class two, 31 (20.3 percent) in class three and 76 (49.7 percent) contractors in class four.

In the construction of buildings activity, a total of 1,671 small contractors were recorded with 258 (15.4 percent) in class five, 379 (22.7 percent) in class six and 1,034 (61.9 percent) in class seven.
The second activity for large contractors was electrical, plumbing and other construction installation activities whereby out of 110 contractors, 50 (45.4 percent) were in class three, 26 (23.6 percent) were in class one and 17 (15.4 percent) were in both classes two and four. Furthermore, in small contractors, Table 2.2(b) shows that construction of other civil engineering projects was second, recording a total of 1,324 contractors whereby 680 (51.4 percent) were in class seven, 366 (27.6 percent) were in class six and 278 (21.0 percent) were in class five.

Table 2.2 (b): Number of Contractors by Activity and Class, 2010

ISIC Rev 4	Construction Activity	Large Contractors					Small Contractors (Weighted)			
		Class 1	Class 2	Class 3	Class 4	Total	Class 5	Class 6	Class 7	Total
410	Construction of buildings	27	19	31	76	153	258	379	1,034	1,671
421	Construction of roads and railways	5	4	14	6	29	42	81	111	234
422	Construction of utility projects	1	0	0	0	1	0	3	0	3
429	Construction of other civil engineering projects	19	4	22	52	97	278	366	680	1,324
431	Demolition and site preparation	0	0	0	1	1	0	0	6	6
432	Electrical, plumbing and other construction installation activities	26	17	50	17	110	131	91	306	528
433	Building completion and finishing	1	1	2	1	5	3	6	19	28
439	Other specialized construction activities	21	15	35	10	81	56	138	122	316
4	**Total**	**100**	**60**	**154**	**163**	**477**	**768**	**1,064**	**2,278**	**4,110**

Table 2.2 (b) portrays a pyramid construction industry structure. A pyramid is a structure whose shape is roughly that of a pyramid in the geometric sense; that is, its outer surfaces are triangular and converge to a single point at the top. A pyramid's structure, with the majority of the weight closer to the ground, and with the few large scale firms on the top and many small and medium scale firms at the bottom, (CRB, 2008). This is fine as long as the majority is taken care of creating an integrated and stable construction industry structure in Tanzania. However, most of the bottom contractors in class seven are weak due to inadequate working capital and lack of support from the government and financial institutions. These face inadequate and erratic work opportunities, inappropriate contract packaging of works which favour foreign firms in donor funded projects, low public investment in infrastructure projects and over dependence on donor funding, (URT, 2003). Those in upper levels are few large scale operators who are well connected into government and financial institutions.

2.3 Number of Contractors by Activity and Year of Starting Operation

Year of starting operation for the contractor, determines the age, experience and the industry advancement in technology. Business experience or age of the firms or exposure to trade entails familiarity with a skill or field of knowledge acquired over months or years of actual practice and which, presumably, has resulted in superior understanding or mastery. Table 2.3 shows number of contractors by activity and year of starting operation.

Out of the total 4,587 contractors (3,759 or 82 percent) started their operation during the last ten years (2000 to 2010) indicating the construction sector of Tanzania Mainland is mainly composed of young firms. The result show that, out of a total of 477 large contractors 174 (36.5 percent) started their operation before 2000 while 152 (31.9 percent) started their operation between 2000 and 2005. The remaining 151 contractors (31.7 percent) started their operation between 2006 and 2010. For small contractors, out of a total of 4,110 contractors 654 (15.9 percent) started their operation before 2000. Also 1,463 contractors started to operate between 2000 and 2005 while 1,993 started between 2006 and 2010. This shows that Tanzanian construction sector is young and less experienced. The concept of experience generally refers to information, know-how or procedural knowledge, rather than propositional knowledge: on-the-job training rather than book-learning.

Table 2.3: Number of Contractors by Activity and Year of Starting Operation

ISIC Rev 4	Construction Activity	Large Contractors				Small Contractors			
		<2000	2000-2005	2006-2010	Total	<2000	2000-2005	2006-2010	Total
410	Construction of buildings	64	39	50	153	276	640	754	1,670
421	Construction of roads and railways	5	14	10	29	60	84	90	234
422	Construction of utility projects	0	0	1	1	0	3	0	3
429	Construction of other civil engineering projects	40	31	26	97	185	425	714	1,324
431	Demolition and site preparation	0	1	0	1	0	3	3	6
432	Electrical, plumbing and other construction installation activities	36	40	34	110	69	175	285	529
433	Building completion and finishing	2	0	3	5	7	9	12	28
439	Other specialized construction activities	27	27	27	81	57	124	135	316
Total	**Number**	**174**	**152**	**151**	**477**	**654**	**1,463**	**1,993**	**4,110**
	Percentage	**36.5**	**31.9**	**31.7**	**100.0**	**15.9**	**35.6**	**48.5**	**100.0**

2.4 Type of Ownership of Enterprises by Activity

Ownership is the state or fact of exclusive rights and control over property, which may be in the construction firm. Ownership involves multiple rights, collectively referred to as title, which may be separated and held by different parties. Tables 2.4(a) and (b) summarize ownership by activity in the Tanzanian Construction Industry in Year 2010.

Table 2.4(a) shows types of ownership of for large contractors by activity. According to the results, the majority of enterprises of large contractors (295 enterprises, 61.8 percent) were owned by private limited companies. In total 373 enterprises or 78.2 percent of large contractors were owned by private companies. However, 60 enterprises (12.6 percent) were owned by individual proprietors while 41 enterprises (8.6 percent) were under partnerships and only 3 enterprises (0.6 percent) were under public ownership and no enterprises of large contractors were owned by parastatals or cooperatives.

Table 2.4 (a) suggests that the government participation in the direct construction works is minimal or negligible at about 0.6 percent. The government has withdrawn from owning, managing and operating construction companies. However, the government through ministries, department and agencies plays the roles of regulator, facilitator, and supporter of construction sector. Since Tanzania Mainland embarked on the social economic and institutional reforms, implementation of physical infrastructure projects has demonstrated inadequate capacity of the public sector – at central government level – to efficiently manage the procurement process and contract supervision and administration, (URT, 2003).

Local authorities are facing even more constraints due to the fact that contracting of works and services are new regimes. Public delivery bottlenecks are due to factors that include lack of appropriate technical and managerial skills, understaffing, inadequate working facilities, lack of appropriate operating systems and procedures, poor remuneration, bureaucracy, inadequate accountability and corruption. Such delivery bottlenecks have partly contributed to the dismal performance of the industry and its poor image.

Table 2.4(b) presents ownership of enterprises of small contractors by activity. The survey results show that the majority of the enterprises of small contractors were also owned by private companies. The Table shows that about 65 percent of small enterprises were owned by private companies and 17.5 percent were owned by individual proprietors. The Table also shows that 16.2 percent of small enterprises were owned by partnership and 0.7 percent of small enterprises were owned by cooperatives. There were very few (about 0.3 percent) of small enterprises owned by public.

The small and medium size private sector contractors in Tanzania Mainland are relatively new and underdeveloped, mainly constrained by limited access and high cost of capital and weak support programmes from government, (CRB, 2008). There is also lack of skills. The most important deciding factors in the development of small contractors in Tanzania Mainland are to address the issue of access to finance, shortage of skills and adequate support from government. Survival, growth and expansion of the small business sector are essential for economic growth and job creation in Tanzania Mainland In many countries small businesses which are the majority, use labour intensive methods and face constraints and challenges, (Haswell, S. and Holmes, S., 1989). These include managerial inadequacy, incompetence, inefficiency and inexperience in running a business venture.

The participation of the local private firms in the available work opportunities for large scale projects is very limited, (CRB, 2008). Participation in large scale construction work opportunities is a far cry for every local supplier of goods and services. It has been alluded that low participation is a result of stiff competition from foreigners aggravated by poor capacity of the local players (be it contractors, consultants or material suppliers) and inadequate supportive environment. Inadequate capacity of local contractors and consultants is a result of factors that include lack of skills, inadequate capital, unfavorable donor conditions and application of inappropriate delivery practices.

Table 2.4 (a): Enterprises of Large Contractors by Type of Ownership and Activity, 2010

(Number)

ISIC Rev 4	Construction Activity	Individual Proprietor	Partnership	Public	Parastatals	Cooperatives	Private Companies	Private Ltd Companies	Others	Total
410	Construction of buildings	7	9	0	0	0	18	119	0	**153**
421	Construction of roads and railways	7	7	1	0	0	5	9	0	**29**
422	Construction of utility projects	0	1	0	0	0	0	0	0	**1**
429	Construction of other civil engineering projects	17	7	1	0	0	16	56	0	**97**
431	Demolition and site preparation	0	0	0	0	0	0	1	0	**1**
432	Electrical, plumbing and other construction installation activities	19	9	0	0	0	24	58	0	**110**
433	Building completion and finishing	0	0	0	0	0	0	5	0	**5**
439	Other specialized construction activities	10	8	1	0	0	15	47	0	**81**
Total	**Number**	**60**	**41**	**3**	**0**	**0**	**78**	**295**	**0**	**477**
	Percentage	**12.6**	**8.6**	**0.6**	**0.0**	**0.0**	**16.4**	**61.8**	**0.0**	**100.0**

Table 2.4 (b): Enterprises under Small Contractors by Type of Ownership and Activity, 2010

(Number)

ISIC Rev 4	Construction Activity	Individual proprietors	Partnerships	Public	Parastatals	Cooperatives	Private Companies	Private Ltd Companies	Others	Total
410	Construction of buildings	267	266	0	0	3	428	700	7	**1,671**
421	Construction of roads and railways	43	51	7	3	3	49	78	0	**234**
422	Construction of utility projects	0	0	0	0	0	0	3	0	**3**
429	Construction of other civil engineering projects	208	220	5	0	12	226	653	0	**1,324**
431	Demolition and site preparation	0	0	0	0	0	3	3	0	**6**
432	Electrical, plumbing and other construction installation activities	131	111	0	0	3	119	164	0	**528**
433	Building completion and finishing	4	6	0	0	0	3	15	0	**28**
439	Other specialized construction activities	68	13	0	3	9	75	148	0	**316**
Total	**Number**	**721**	**667**	**12**	**6**	**30**	**903**	**1,764**	**7**	**4,110**
	Percentage	**17.5**	**16.2**	**0.3**	**0.1**	**0.7**	**22.0**	**42.9**	**0.2**	**100**

2.5 Equity Participation by Activity

Equity participation in this survey is according to the categories of the Contractors Registration Board (CRB). Equity participation is categorized as national, foreign or joint depending on the nationality of shareholders. There are two main categories of contractors, i.e. local and foreign. Local contracting firms are those firms whose majority shares are owned by citizens of the United Republic of Tanzania. Other firms are registered as foreign.

Table 2.5 portrays equity participation of large contractors by activity in year 2010. The results show that, the majority (89.9 percent) of the enterprises were owned by Tanzanians. The results also show that few (5.7 percent) of large construction enterprises were jointly owned by both Tanzanians and foreigners and 4.4 percent were owned by foreigners.

Table 2.5: Equity Participation for Large Contractors by Activity, 2010

(Number)

ISIC Rev 4	Construction Activity	Tanzanian Owned	Joint Tanzanian / Foreign	Foreign Owned	Total
410	Construction of buildings	137	11	5	153
421	Construction of roads and railways	25	1	3	29
422	Construction of utility projects	1	0	0	1
429	Construction of other civil engineering projects	90	5	2	97
431	Demolition and site preparation	1	0	0	1
432	Electrical, plumbing and other construction installation activities	101	7	2	110
433	Building completion and finishing	5	0	0	5
439	Other specialized construction activities	69	3	9	81
Total	**Number**	**429**	**27**	**21**	**477**
	Percentage	**89.9**	**5.7**	**4.4**	**100.0**

In 2006 for example, the majority of enterprises in the construction sector in Tanzania were in the category of small contractors with a few in the medium category capable of undertaking works valued at more than Tshs. 300 million. Despite that local firms constituted 95 percent of the total construction enterprises (about 4,300 registered contractors and 250 consultants), they only managed to undertake construction projects worth 10 percent in terms of monetary value. The remaining 90 percent share was taken by foreign firms which constituted only 5 percent of the total registered firms.

However, the current legal structures and equity participation of the construction sector firms have remained the same over the last ten years. This suggests that in the long run, the Tanzanian

Mainland construction sector has potential to expand into, and integrate with, transnational companies. This is due to the fact that most of the medium and large scale firms are limited liability private companies which are the best form in the current competitive market system and most involving in the current global financial and business environment. The legal status of medium and large scale construction sector has been formal because the government encourages investors to transform their firms in line with the national target of attaining a private sector led economic growth. The government is dedicated to promote Greenfield investments through joint ventures and partnerships between local and foreign investors (URT, 2009).

2.6 Number of Enterprises and Persons Engaged by Type of Ownership

Total number of persons engaged refers to the number of persons working with or without pay; full or part time, temporary or permanent. Table 2.6 shows the number of enterprises and persons engaged by type of ownership for large and small contractors.

The results show that 477 large construction enterprises engaged a total of 20,215 persons (17,275 or 85 percent males and 2,940 or 15 percent females). In small contractors, a total of 89,664 persons (67,496 or 75 percent males and 22,168 or 25 percent females) were engaged in 4,110 construction enterprises.

Table 2.6: Number of Enterprises and Persons Engaged by Type of Ownership and Sex

	Large Contractors					Small Contractors				
		Persons Engaged					Persons Engaged			
Ownership	Estabs.	Males	Females	Total	%age Female	Estabs	Male	Female	Total	%age Female
Individual proprietors	60	1,081	208	1,289	16.1	721	11,428	4,277	15,705	**27.2**
Partnerships	41	880	212	1,092	19.4	667	8,206	1,985	10,191	**19.5**
Public	3	916	48	964	5.0	12	96	0	96	**0.0**
Parastatals	0	0	0	0	0.0	6	104	6	110	**5.5**
Cooperatives	0	0	0	0	0.0	30	320	86	406	**21.2**
Private companies	78	2,577	664	3,241	20.5	903	14,159	3,541	17,700	**20.0**
Private limited companies	295	11,821	1,808	13,629	13.3	1,764	33,116	12,258	45,374	**27.0**
Others	0	0	0	0	0.0	7	67	15	82	**18.3**
Total	**477**	**17,275**	**2,940**	**20,215**	**14.5**	**4,110**	**67,496**	**22,168**	**89,664**	**24.7**

The results also show that private limited companies (both large and small) engaged more persons (13,629 persons or 67 percent in large contractors and 45,374 persons or 50.6 percent in small contractors), followed by private companies with 3,241 persons (16 percent) in large contactors

and 17,700 persons (19.7 percent) in small contractors. Individual proprietors had 1,289 persons (6.4 percent) in large contractors and 15,706 persons (17.5 percent) in small contractors.

2.7 Female Participation in the Construction Sector

Table 2.6 shows that the proportions of females in persons engaged are relatively low in the construction sector in Tanzania Mainland. The large contractors had a lower propotion of females (14.5 percent) than small contractors (24.7 percent).

The male-female gap in the construction sector personnel engagement can be explained within the framework of the different gender roles of men and women. The average rate of engagement for females in the construction sector has been lower than that of males. There are wide variations in female engagement between large and small scale construction firms. Studies suggest that men and women are not distributed evenly across the sectors of the economy, as women comprise the majority of person engaged in agriculture, while men are substantially more in other industries. This reveals that females are facing many social, economic and cultural problems and/or are discriminated in the formal labour markets.

The number of females in the construction industry is smaller than that of males due to the fact that women face various social structural constraints for their effective participation in economic activities. These include, poor customary laws and norms which impede women to a greater extent than men, from obtaining land, credit, productive inputs, education, and information; the coexistence of multiple laws which create ambivalence (for example, customary and statute laws relating to marriage and inheritance); gender bias in access to basic human resource development services such as education and vocational training, resulting in gender gaps in adult and youth literacy rates and intermittent poverty, resulting from women's multiple and competing reproductive and productive responsibilities.

The low rate of female participation in the construction sector suggests that, the construction industry culture needs to change if it is to escape from the current image, conflict and masculinity. The following are some suggestions, managing issues and variables affecting career aspirations and development while concurrently focus on factors that influence women's entry into construction (Bennet *et al*. 1999); Centre on ensuring equal opportunities exists for women working within the sector and ensuring them to remain within it (Dainty *et al*, 2000).

Present a clear path for career opportunities regardless of sex and thus providing equal opportunities among employees (Dainty *et.al*, 2000); the recommendations for recruitment of women into construction must hub at the elementary and secondary schools and conversing with students about the prospects offered within the industry and employers must also be sensitive to providing better facilities.

Indeed, women were found to have progressed at a lower rate in the industry while confronting many obstacles and barriers. A range of interrelated structural and cultural factors defined in this gender disparity in career development, together with the interactive strategies of men and women in coping with career constraints and exploiting career opportunities. The government has to encourage women participation in the construction industry, they must be provided with support and encouragement for non-traditional choices at an early age. Women must be recruited into training programs with the aim of configuring the curriculum and skills training to assimilate them into non-traditional employment. After securing a career in construction, the construction organization must continue to support this cohort group especially those with family obligations, by developing flexible work schedule and work-hours.

CHAPTER THREE

EMPLOYMENT AND LABOUR MARKET

3 Introduction

Labour markets provide the structure through which workers and employers interact in relation to jobs, working conditions and pay. Labour market statistics measure different aspects of work and jobs and provide an insight into the economy. Chapter three is about employment and labour market in the construction sector. It analyzes number and distribution of persons engaged in establishments by industrial activity gender and classes in large and small contractors, employee's compensation (labour costs) by type of construction activity as well as by classes. Specifically, the chapter covers people's participation in construction activities, working patterns and the types of work they do. It also discusses earnings and benefits received for people's participation in construction activities.

3.1 Persons Engaged in the Construction Sector

This section examines the number of persons engaged in the construction sector in 2010 for both large and small contractors. The contractors are classified into eight industrial activities according to the International Standard Industrial Classification Rev 4. Contractors in classes I-IV are regarded as large contractors and those in classes V-VII are small contractors. Persons engaged refer to all persons involved in the activity as at 31st December 2010 including working proprietors, unpaid helpers, administrative staff, operatives and other employees as defined below:

(i) Employers/working proprietors; These are active owners of the unit who had worked for at least one third (⅓) of the reference period. All working cooperative members were regarded as employees.

(ii) Contributing family workers; Persons who work for at least ⅓ of normal working time for the enterprise. They work without regular pay or any agreed amount to be paid for work done.

(iii) Administration staff; This category includes salaried managers and directors and other administrative, technical (e.g., engineers, architects, etc) and clerical personnel.

(iv) Operatives; Workers directly engaged in construction work and related activities of the establishment and who receive pay, in cash or in kind, at regular intervals. Examples of operatives are bricklayers, carpenters, plasterers, etc., both skilled and unskilled.

(v) Other employees; All other persons not mentioned above who were involved in the construction activities.

Survey results presented in Tables 3.1(a) and 3.1(b) show that, a total of 109,879 persons were engaged by the construction industry of whom 20,215 persons (18.4 percent) were by large contractors and 89,664 persons (81.6 percent) were engaged by small contractors. This shows that small and medium scale construction firms employ many people, i.e., it is labour intensive and therefore can be considered as an important sector in absorbing labour power from technical and vocational education and training institutions in Tanzania. There are indications of high level of casualization of labour on all construction sites in the country, (ILO and NCC, 2005). At least 70 - 75 percent of the workers on each site are employed on a temporary or casual basis. All casual employees are indigenous. The total number of workers on permanent contracts averages less than 10 percent of the workforce. The employment of workers on a casual (daily) basis is not specifically prohibited in Tanzanian law but the social security legislation and the Employment Ordinance (Cap 366) both discourage casualization in employment relationships. Also, the Bill of the new Labour Laws does not recognize casual employment contracts, (ILO and NCC, 2005).

Analyzing the results by construction activity, construction of buildings had the largest share (38.0 percent) of the total persons engaged followed by construction of other civil engineering projects (29.5 percent) and construction of roads and railways (11.4 percent). The electrical, plumbing and other construction installation activities had 10.7 percent whereas other specialized construction activities had 9.7 percent of the total persons engaged. The construction of utility projects, demolition and site preparation and building completion and finishing together had a share of less than one percent.

Table 3.1(a): Number of Persons Engaged by Activity and Type of Contractor

ISIC Rev 4	Construction Activity	Large	Small	Total
410	Construction of Buildings	7,898	33,828	41,726
421	Construction of roads and railways	927	11,624	12,551
422	Construction of utility projects	4	36	40
429	Construction of other civil engineering projects	4,239	28,144	32,383
431	Demolition and site preparation	63	36	99
432	Electrical, plumbing and other construction installation activities	2,933	8,815	11,748
433	Building completion and finishing	201	439	640
439	Other specialized construction activities	3,950	6,742	10,692
4	**Total**	**20,215**	**89,664**	**109,879**

Table 3.1 (b): Percentage of Persons Engaged in Construction Sector by Activity and Type of Contractor, 2010

ISIC Rev 4	Construction Activity	Large	Small	Total
410	Construction of buildings	39.1	37.7	38.0
421	Construction of roads and railways	4.6	13.0	11.4
422	Construction of utility projects	0.0	0.0	0.0
429	Construction of other civil engineering projects	21.0	31.4	29.5
431	Demolition and site preparation	0.3	0.0	0.1
432	Electrical, plumbing and other construction installation activities	14.5	9.8	10.7
433	Building completion and finishing	1.0	0.5	0.6
439	Other specialized construction activities	19.5	7.5	9.7
4	**Total**	**100.0**	**100.0**	**100.0**

Within the large contractors, construction of buildings had the largest share of 39.1 percent of the total persons engaged in the construction industry, followed by construction of other civil engineering projects with 21 percent, other specialized construction activities engaged with 19.5 percent, and electrical, plumbing and other construction installation activities with a share of 14.5 percent and construction of roads and railways with a share of 4.6 percent. Building completion and finishing, demolition and site preparation and construction of utility projects had jointly a share of 1.3 percent of the total persons engaged by large contractors.

Within the small contractors, construction of buildings also dominated by having 37.7 percent of the total persons engaged while construction of other civil engineering projects had 31.4 percent. The construction of roads and railways contributed 13.0 percent, whereas electrical, plumbing and other construction installation activities had 9.8 percent of the total persons engaged in small construction

industries, while other specialized construction activities had a share of 7.5 percent. Like in large contractors, building completion and finishing, demolition and site preparation and construction of utility projects jointly had 0.5 percent of the total persons engaged by small contractors.

Analysing persons engaged by category, Figure 3.1 shows that the majority (52.7 percent) of the persons engaged by large contractors were operatives, whereas administrative staff constituted 17.2 percent. Other employees had a share of 16.6 percent while working proprietors constituted 12.4 percent of the persons engaged and contributing family workers accounted for 1.1 percent of total persons engaged by large contractors.

The above suggests that Tanzanian construction sector is dominated by small and medium scale sector which is labour intensive and, including indirect jobs, it is projected to provide employment to more than 1.5 million people in Tanzania Mainland.

It can be inferred from the above that the "employment intensity" of construction activity is much higher in the small scale firms than in the large scale ones. The difference reflects the lower value of output in small scale firms (due to lower wages and material costs), but it is also a reflection of the pressure to use labour more sparingly in the large scale firms where wages are high and labour costs are a large percentage of the tender price. This has generally been achieved by replacing labour with machines, through pre-fabrication and a greater use of plant and machinery in the production process.

The use of more capital-intensive methods of production in the large scale construction sector makes sense in economic terms in high-income countries. But it has sometimes spilled over into the small and medium firms, particularly on civil engineering projects. There are a number of reasons why this is so. The main factor is a considerable bias towards equipment-intensive methods on the part of the decision-makers on investments in small firms in Tanzania, (CRB, 2008). These include the clients, the lenders and the consultant engineers who provide the design and specification, which often determines the methods that have to be used in construction. This bias is often based on a misunderstanding of the cost effectiveness of labour-based methods and the perception that the product would be of lower quality. It is reinforced by national tendering systems that favour large-scale project planning and execution and hence capital-intensive methods.

Figure 3.1: Percentage of Persons Engaged by Large Contractors by Category

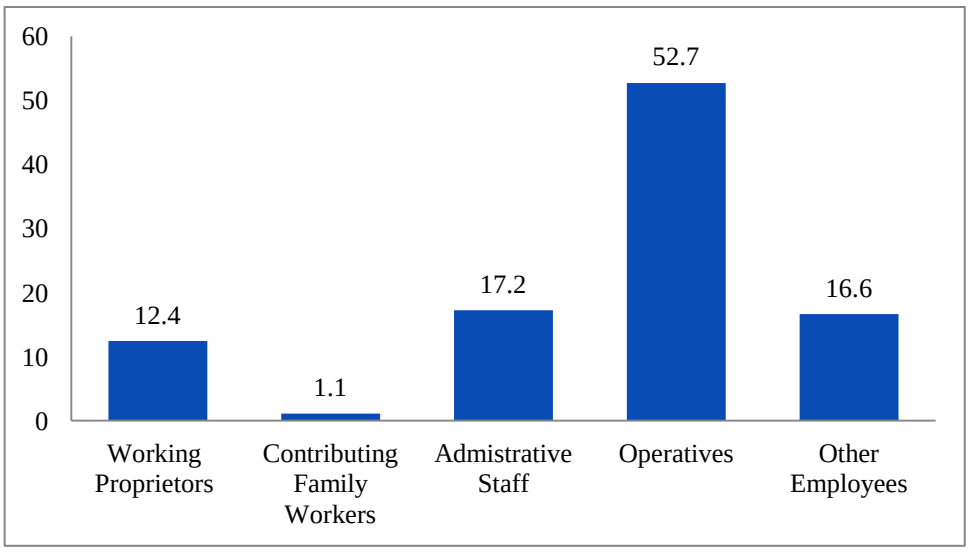


Figure 3.2 presents the percentages of persons engaged by small contractors. The results show a pattern similar to that of large contractors with operatives having the largest share of 55.1 percent, followed by other employees with 33.9 percent. Working proprietors share was about 8 percent while family workers constituted only 3 percent. Most of the operatives are unskilled workers with primary and secondary school education from poor rural and urban areas. Construction has the ability to "absorb the excluded" (ILO, 2001 and ILO and NCC, 2005). It provides employment for those with little education or skill, many of them from the poorer sections of the society.

Subcontracting has always been important in the construction industry, particularly in building construction where the production process is divided into a number of discrete activities. These tasks or activities are often carried out sequentially and may require specialized labour. Hence, it often makes sense, in technical and economic terms, for general contractors to subcontract some tasks to independent, specialized units or and use casual workers.

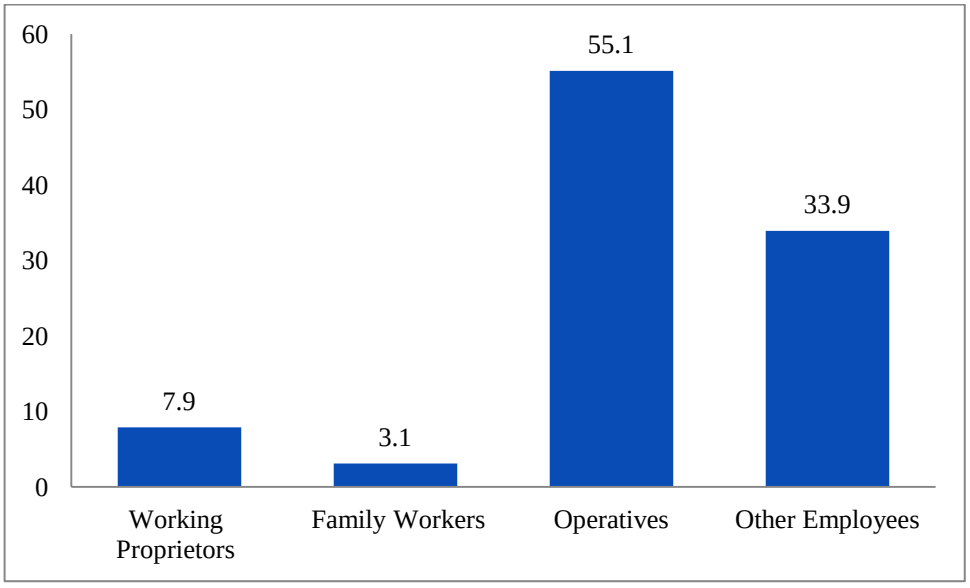
In Tanzania, the practice of recruiting labour through subcontractors and intermediaries is a new phenomena. Subcontracting is usually on a "labour only" basis and may go through several stages on a large project, creating a multi-layer contracting system. In most cases, it is the large scale operators subcontracting the small scale operators. The majority of enterprises in the construction industry in Tanzania are small with a few of them being in the medium category. Small enterprises are vital for the

creation of employment in Tanzania. Small construction enterprises employed 81.6 percent of the persons engaged in the construction industry (Table 3.1(a)).

The survey suggests large scale employs less than small scale and studies suggest that employment in the small scale has picked up a large and increasing number of construction workers in enterprises with less than five or ten employees, (ILO, 2001). This apparent gap in employment to very small enterprises in part reflects the fact that the larger contractors operating in Tanzania have shed their directly employed workers in the face of declining workloads (as has happened elsewhere in the world) and resorted to the use of subcontractors and intermediaries for their labour supply.

Labour subcontractors with some skills, known locally as *fundis*, are now acting as gang leaders and suppliers of labour to larger firms, with whom they may once have been employed and where they may have learned their skills. But there is also evidence that the *fundis* are now bypassing the more formal part of the industry (large contractors and professionals) and entering directly into contracts with private clients (building owners) to supply labour for their projects, while the clients themselves (or their foremen) provide materials and coordinate the work of the various trades. While this is the way that houses have traditionally been procured, many building owners or clients are now choosing to commission non-residential buildings through what has been termed "the informal construction system" (ILO, 2001).

Figure 3.2: Percentage of Persons Engaged by Small Contractors by Category



3.2 Number of Persons Engaged by Activity, Citizenship and Gender

This section examines the number of persons engaged in the construction industry as at 31st December, 2010 in large contractors with regard to construction activity, citizenship and sex. In recent years, data aggregations by sex have been crucial and demanded by stakeholders so as to know women's role in economic activities.

3.2.1 Number of Persons Engaged by Large Contractors by Activity and Sex

The data that are examined in this sub-section are persons engaged by large contractors in regard to activity, citizenship and sex. Survey results presented in Tables 3.2(a) and 3.2(b) indicates that male Tanzanians dominated the construction industry. The Tables show that 81.2 percent of 20,215 persons engaged by large contractors were Tanzanian males, while female Tanzanians constituted 14 percent. Foreigners' participation in construction industry was relatively low and constituted about 5 percent of whom males were about 4 percent and females were less than 1 percent.

Analysing the findings by activity, the results reveal that out of 20,215 persons engaged by large contractors, 16,407 were Tanzanian males, of whom 6,432 were engaged in the construction of buildings, 3,637 in construction of other civil engineering projects whereas those in other specialized construction activities were 2,960. The electrical, plumbing and other construction installation activities had 2,398 persons.

Table 3.2 (a): Number of Persons Engaged by Large Contractors on 31st December, 2010 by Activity, Citizenship and Sex

ISIC Rev 4	Construction Activity	Tanzanians		Foreign		Total
		Male	Female	Male	Female	
410	Construction of buildings	6432	1088	354	24	7898
421	Construction of roads and railways	765	141	20	1	927
422	Construction of utility projects	4	0	0	0	4
429	Construction of other civil engineering projects	3637	408	180	14	4239
431	Demolition and site preparation	59	4	0	0	63
432	Electrical, plumbing and other construction installation activities	2398	461	64	10	2933
433	Building completion and finishing	152	31	14	4	201
439	Other specialized construction activities	2960	707	236	47	3950
4	**Total**	**16,407**	**2,840**	**868**	**100**	**20,215**

Table 3.2 (b): Percentage of Persons Engaged by Large Contractors on 31st December, 2010 by Activity, Citizenship and Sex

ISIC. Rev 4	Construction Activity	Tanzanians		Foreign		Total
		Male	Female	Male	Female	
410	Construction of buildings	31.8	5.4	1.8	0.1	39.1
421	Construction of roads and railways	3.8	0.7	0.1	0.0	4.6
422	Construction of utility projects	0.0	0.0	0.0	0.0	0.0
429	Construction of other civil engineering projects	18.0	2.0	0.9	0.1	21.0
431	Demolition and site preparation	0.3	0.0	0.0	0.0	0.3
432	Electrical, plumbing and other construction installation activities	11.9	2.3	0.3	0.0	14.5
433	Building completion and finishing	0.8	0.2	0.1	0.0	1.0
439	Other specialized construction activities	14.6	3.5	1.2	0.2	19.5
4	**Total**	**81.2**	**14.0**	**4.3**	**0.5**	**100.0**

It is also revealed that out of 20,215 persons engaged by large contractors, only 2,840 were Tanzanian females, i.e. about 14%. These few females were engaged as follows: construction of buildings had 1,088 persons other specialized construction activities (707); electrical, plumbing and other construction installation activities (461); other civil engineering projects (408); construction of roads and railways (141) and the remaining activities (35). ILO and NCC study done in 2005 found that females constituted less than 15 percent of the total persons and most are working in the offices. There is no evidence found of discrimination in the wages paid to men and women executing the same amount of work, (ILO and NCC, 2005).

There are reports of increasing number of women, directly and indirectly engaged in construction development activities. Direct involvement is in the roads and building construction, while their indirect involvement is in the provision of other social and economic services in construction sites. The growth in women's involvement in construction activities has been brought about by several factors. The impact of structural adjustment programmes, low commodity prices or drought, the decline of the public and private employment, trading, farming and inflation has led many people, especially women who relied on subsistence agriculture, to seek new, alternative or additional paid employment for a better quality of life or, more usually, just to survive. Also, an increasing number of women are heads of households in Tanzania, having to seek employment where they can.

Studies suggest that women are less likely than men to have contacts among the existing workforce in the construction sector; therefore it is more difficult for them to get into the industry, (Arthur Jason, 2007). Many times women prefer light work and in construction there are few such jobs. Also, there are few women with construction skills or qualifications: this is perhaps why they are found in stone crushing and food vending where qualifications are not required. Women are less willing to work in the sector because they are busy doing housework. It is perceived in some traditions and customs that work that needs muscular efforts is for men and also some men do not allow their wives to go for outdoor jobs. In coastal areas some religious sects which do not allow women to do this kind of work

3.2.2 Number of Persons Engaged in Small Contractors by Activity and Sex

In small contractors, data was not aggregated by citizenship as in large contractors; instead data focused on gender and whether on full time or part time basis. This is due to the fact that the majority of the workers in the small scale contractors were mostly Tanzanians.

Table 3.3(a) shows that the total persons engaged were 89,664 made up of 67,496 males and 22,168 females. Of the males, those who worked full-time were 39,821 and the remaining 27,675 worked part-time. In the case of females, 8,557 worked full-time and 13,611 were part-time. The full-time persons engaged were 54 percent of the total and those engaged part-time were 46 percent.

Furthermore, findings by activity and gender reveal that out of 39,821 full time Tanzanian males, equivalent to 44.4 percent of the total persons engaged. The construction of buildings industry constituted the largest share (18.5 percent) followed by other civil engineering projects (15.2 percent) while other construction activities collectively constituted about 10 percent. On the other hand, out of 8,557 full time female Tanzanians, equivalent to 9.5 percent of the total persons engaged, the majority (4.2 percent) were in the construction of buildings while other specialized construction activities constituted 3.2 percent of the full-time persons engaged in small contractors.

Table 3.3 (a): Number of Persons Engaged by Small Contractors on 31st December 2010 by Activity, Terms of Engagement and Sex

ISIC Rev 4	Construction Activity	Full-Time		Part-Time		Total
		Males	Females	Males	Females	
410	Construction of buildings	16,548	3,787	10,315	3,178	33,829
421	Construction of roads and railways	2,810	485	2,253	6,076	11,624
422	Construction of utility projects	12	6	18	0	36
429	Construction of other civil engineering projects	13,588	2,907	8,430	3,219	28,144
431	Demolition and site preparation	33	3	0	0	36
432	Electrical, plumbing and other construction installation activities	3,955	646	3,860	354	8,815
433	Building completion and finishing	220	56	157	6	439
439	Other specialized construction activities	2,655	667	2,642	778	6,742
4	**Total**	**39,821**	**8,557**	**27,675**	**13,611**	**89,664**

Table 3.3 (b) : Percentage of Persons Engaged by Small Contractors on 31st December, 2010 by Activity, Terms of Engagement and Sex

ISIC Rev 4	Construction Activity	Full-Time		Part-Time		Total
		Males	Females	Males	Females	
410	Construction of buildings	18.5	4.2	11.5	3.5	37.7
421	Construction of roads and railways	3.1	0.5	2.5	6.8	13.0
422	Construction of utility projects	0.0	0.0	0.0	-	0.0
429	Construction of other civil engineering projects	15.2	3.2	9.4	3.6	31.4
431	Demolition and site preparation	0.0	0.0	-	-	0.0
432	Electrical, plumbing and other construction installation activities	4.4	0.7	4.3	0.4	9.8
433	Building completion and finishing	0.2	0.1	0.2	0.0	0.5
439	Other specialized construction activities	3.0	0.7	2.9	0.9	7.5
4	**Total**	**44.4**	**9.5**	**30.9**	**15.2**	**100.0**

With regard to part time workers, out of 27,675 males Tanzanians, equivalent to 30.9 percent of the total persons engaged, the majority (11.5 percent) were engaged in the construction of buildings followed by the construction of other civil engineering projects (9.4 percent) and electrical, plumbing and other construction installation activities (4.3 percent). Out of 13,611 part time female Tanzanians, equivalent to 15.2 percent of the total persons engaged. Construction of roads and railways had the largest percentage of female workers (6.8 percent), followed by construction of other civil engineering projects with 3.6 percent and construction of buildings with a share of 3.5 percent.

The results also indicate that small contractors play an important role in this industry as it employs four times the number employed by large contractors. This entails strong support from the government in terms of access to capital to enable them work efficiently.

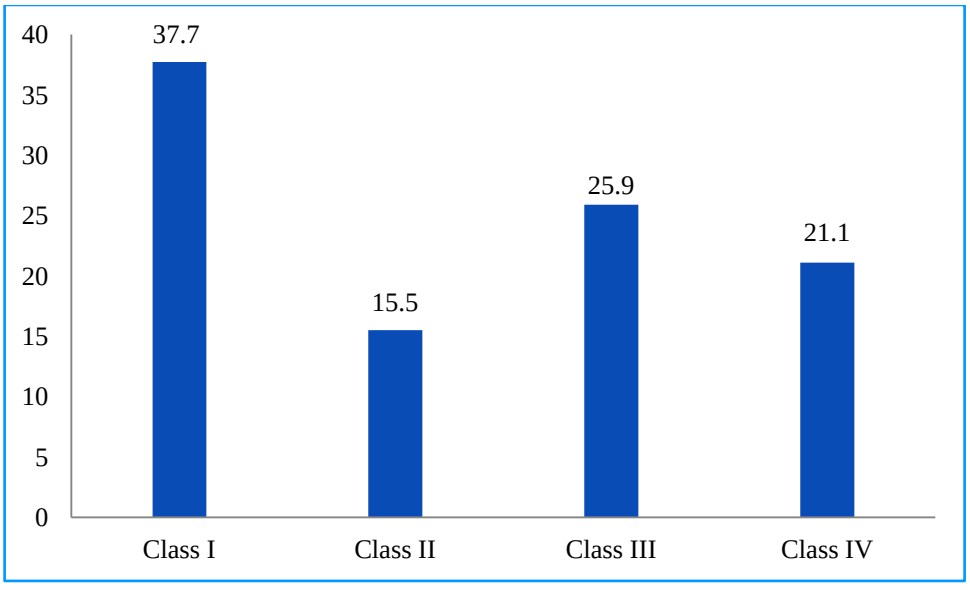
3.3 Persons Engaged by Activity and Class

Persons engaged in construction industries by activity and class is another way of analyzing data with a focus on the distribution of employees among classes for both large and small contractors. Figures showing percentages for each class in each group were used to present the results. Annex 3.1 gives details of the results in absolute numbers and percentages.

3.3.1 Distribution of Persons Engaged by Large Contractors by Class

Figure 3.3 shows that, out of 20,215 persons engaged (see Table 3.2(a)), Class I contractors are the leading class with 37.7 percent of persons engaged, followed by Class III (25.9 percent, Classes IV (21.1 percent) and Class II (15.2 percent).

Figure 3.3: Percentage Distribution of Persons Engaged by Large Contractors by Class

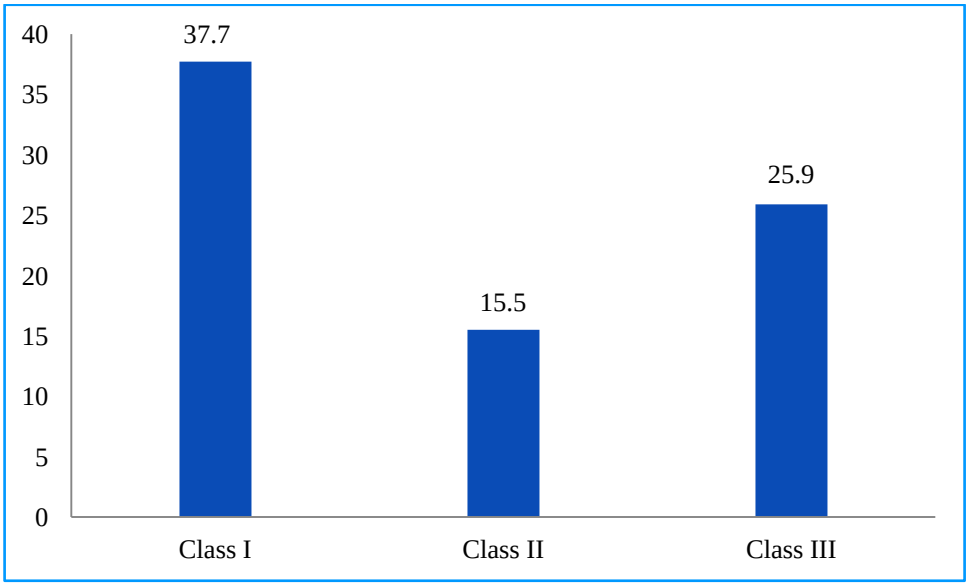


The results show that all classes of large contractors are of significant importance in creating employment ranging between 15 percent and 40 percent of of the total persons engaged.

3.3.2 Distribution of Persons Engaged by Small Contractors by Class

Figure 3.4 shows percentage distribution of persons engaged in small contractors by class. The results show that, out of the total 89,664 persons engaged in this category, class VII dominated other classes of small contactors with 47.0 percent followed by class VI with 32.0 percent and class V with 21.0 percent. In addition, class VI and VII together engaged 79 percent of the total persons in the small contractor's category.

Figure 3.4: Percentage of Persons Engaged by Small Contractors by Class



3.4 Number of Persons Engaged Quarterly by Large Contractors by Activity

This section focuses on the number of persons engaged on quarterly basis for large contractors. The data used refers to the last month of each quarter in 2010. Table 3.4 shows that the number of persons engaged increased throughout the year 2010. The quarter ending March reported the lowest number of 16,993 of persons engaged. Persons engaged by large contractors increased from 17, 585 persons in June 2010 to 18,576 persons in September 2010. The largest number of persons engaged was 20,215 of December 2010. The results reveal that construction activities are higher during the period of October to December, 2010 followed by the period of July to September, 2010. These results show that construction activities are mostly done during dry season rather than in rainy season. However, January to March recorded the minimum number of persons engaged in construction activities. This pattern of employment is observed in all

categories of construction activities except construction of utility projects which recorded a constant employment size of four employees (the minimum) among all construction activities.

According to the National Employment Policy 2008, the construction sector, is growing relatively rapidly, hence it has a high potential for employment creation. This is triggered largely by public construction projects both in urban and rural areas, as well as residential and commercial housing.

The sector is expected to show buoyant growth under the National Strategy for Growth and the Reduction of Poverty, as the government and private sector aim at increasing investments in the 'lead' sectors including agriculture, tourism, mining, manufacturing and infrastructure development particularly through community based construction and maintenance of rural roads.

Table 3.4: Number of Persons Engaged Quarterly by Large Contractors and Activity, 2010

ISIC Rev 4	Construction Activity	March	June	September	December
410	Construction of buildings	6,388	6,752	7,190	7,898
421	Construction of roads and railways	653	723	725	927
422	Construction of utility projects	4	4	4	4
429	Construction of other civil engineering projects	3,757	3,738	4,156	4,239
431	Demolition and site preparation	53	56	59	63
432	Electrical, plumbing and other construction installation activities	2,723	2,482	2,554	2,933
433	Building completion and finishing	143	148	152	201
439	Other specialized construction activities	3,272	3,682	3,736	3,950
4	**Total**	**16,993**	**17,585**	**18,576**	**20,215**

The 2010 Integrated Business Survey was conducted in line with National Employment Policy 2008 in addressing some of the policy issues and statements including enhancing an effective and efficient Labour Market Information System whose objective is to have a robust labour market information system that adequately informs planning and decision making processes. Among the policy statement says "*The Government in collaboration with the Employers and Workers Organizations, the National Bureau of Statistics (NBS) and other stakeholders will determine the*

data and information needs, standards, methodologies to be used, the time frame and institutional linkages to ensure availability of current and reliable labour market information"

The 2010 Integrated Business Survey is one way developing reliable labour market information and providing baseline information on employment and hopefully means of updating it so that reliable employment information for other years is available. However, it should be noted that the survey captured information for registered contractors and excluded all unregistered and individuals who also take part in construction of residential buildings, electrical, plumbing and other construction installation activities.

3.5 Labour Cost

Labour cost is the sum of all payments made by the employer to an employee. It includes wages, salaries and bonuses, overtime payments, travelling allowance, benefits in kind, severance/termination allowance and retirement pension, work permit, employer's contribution to social security schemes and employer's contribution to welfare funds.

3.5.1 Labour Costs for Large Contractors by Activity

The results show that, large contractors had a total labour cost of TShs 71,211,384 thousand, equivalent to 41.2 percent of the total construction sector labour cost. The construction of buildings had the largest labour cost of TShs 23,032,409 thousand (32.3 percent) followed by other specialized construction activities with TShs 19,269,429 thousand (27.1 percent) electrical, plumbing and other construction installation activities with TShs 13,560,294 thousand (19 percent) and construction of other civil engineering projects with TShs 13,137,685 thousand (18.4 percent). Other construction activities had a total labour cost share of 3.1 percent.

Wages and salaries paid to employees/workers constituted the largest share, with 68.6 percent of the total large contractors labour costs, followed by travelling allowance (7.9 percent) and contribution to NSSF constituting (7.5 percent). The payments in kind had a share of 6.1 percent. Other labour costs constituted a share of 8.9 percent.

Examining the results given in Figure 3.5 it is observed that other specialized construction activities had the highest average labour cost per worker of TShs 4,878.3 thousand per year followed by electrical, plumbing and other construction installation activities with an average labour cost per worker of TShs. 4,623.4 thousand and construction of other civil engineering projects with an average labour cost per worker of TShs 3,099.2 thousand. Construction of buildings, the greatest employer of the construction industry had an average labour cost per worker of TShs 2,916.2 thousand. Other results on average labour cost per worker are as reported in Figure 3.5.

Table 3.5: Total Labour Costs for Large Contractors by Activity, 2010

(000 TShs)

ISIC Rev 4	Construction Activity	Wages & Salaries	Overtime Payments	Travelling Allowance	Payments In Kind	Severance	Work Permits	Contribution To NSSF	Sub Total 1
410	Construction of buildings	15,263,412	405,055	1,589,153	2,137,408	29,669	196,878	2,193,397	**21,814,972**
421	Construction of roads and railways	1,586,332	3,680	71,408	47,629	12,254	19,916	34,783	**1,776,002**
422	Construction of utility projects	0	0	0	960	0	0	0	**960**
429	Construction of other civil engineering projects	9,148,685	1,316,692	541,306	434,609	149,005	87,287	852,393	**12,529,977**
431	Demolition and site preparation	62,475	0	0	5,400	0	0	4,879	**72,754**
432	Electrical, plumbing and other construction installation activities	9,399,620	338,566	1,257,636	706,795	126,969	94,708	765,937	**12,690,231**
433	Building completion and finishing	195,225	16,857	8,117	11,817	589	317	34,781	**267,703**
439	Other specialized construction activities	13,177,708	600,673	2,130,114	1,018,838	61,553	53,970	1,482,532	**18,525,388**
Total	**Value**	**48,833,457**	**2,681,523**	**5,597,734**	**4,363,456**	**380,039**	**453,076**	**5,368,702**	**67,677,987**
	Percentage	**68.6**	**3.8**	**7.9**	**6.1**	**0.5**	**0.6**	**7.5**	**95.0**

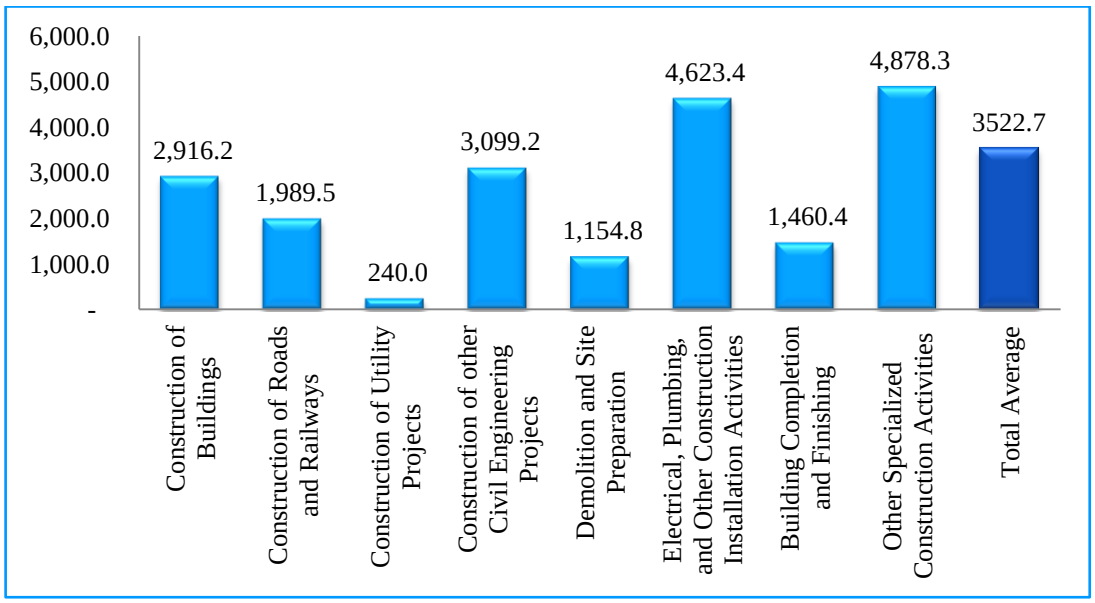
Table 3.5(Contd.): Total Labour Costs for Large Contractors by Activity, 2010

(000 TShs)

ISIC Rev 4	Construction Activity	Contribution to PPF	Contribution to Other Schemes	Welfare Fund	Training Expenses Overseas	Training Expenses Local	Other Expenses	Sub Total 2	Total Expenses	
									Value	%age
410	Construction of buildings	36,230	194,804	130,879	187,321	123,776	544,427	**1,217,437**	**23,032,409**	**32.3**
421	Construction of roads and railways	24,600	3,000	16,688	450	20,990	2,574	**68,302**	**1,844,304**	**2.6**
422	Construction of utility projects	0	0	0	0	0	0	**0**	**960**	**0.0**
429	Construction of other civil engineering projects	36,515	9,243	82,558	120,055	54,847	304,490	**607,708**	**13,137,685**	**18.4**
431	Demolition and site preparation	0	0	0	0	0	0	**0**	**72,754**	**0.1**
432	Electrical, plumbing and other construction installation activities	37,638	196,463	18,156	48,037	148,266	421,503	**870,063**	**13,560,294**	**19.0**
433	Building completion and finishing	3,139	2,576	0	0	15,000	5,131	**25,846**	**293,549**	**0.4**
439	Other specialized construction activities	0	18,029	77,194	134,559	459,326	54,933	**744,041**	**19,269,429**	**27.1**
Total	**Value**	**138,122**	**424,115**	**325,475**	**490,422**	**822,205**	**1,333,058**	**3,533,397**	**71,211,384**	**100**
	Percentage	**0.2**	**0.6**	**0.5**	**0.7**	**1.2**	**1.9**	**5.0**	**100.0**	

Figure 3.5: Average Labour Cost per Worker per Year for Large Contractors by Activity

(000'TShs)



These results reflect the kind of activities that required skills. Activities that require the majority of employees to have professional skills are likely to pay higher wages and salaries than those activities which require unskilled labour.

3.5.2 Labour Costs of Small Contractors by Activity

Table 3.6 shows that the total labour cost of Tshs 101,452,977 thousands (42.1 percent) for construction of buildings which was the largest share followed by construction of other civil engineering projects (31.2 percent); electrical, plumbing and other construction installation activities (11.4 percent); other specialized construction activities constituted (8.4 percent); construction of roads and railways (5.9 percent); and other activities (1 percent).

Gross wages paid to operatives constituted 57.2 percent of total labour costs, followed by gross salaries paid to other employees with 28.7 percent. Benefits in kind had a share of 10.6 percent and social security schemes had a share of 3.6 percent.

Table 3.6: Total Labour Costs of Small Contractors by Activity, 2010

(000'Tshs)

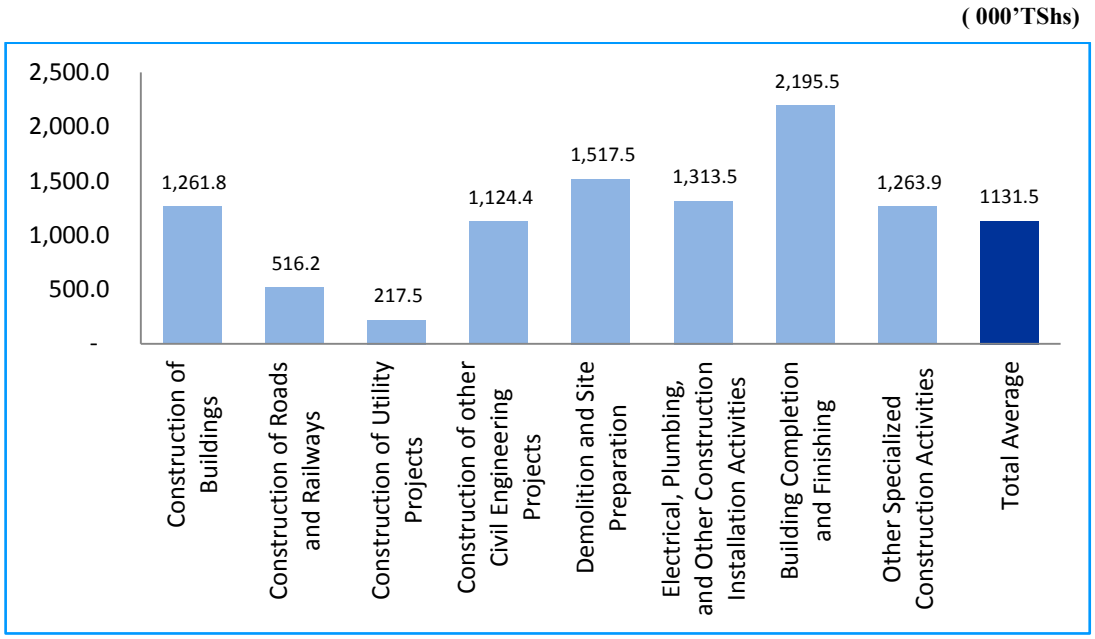
ISIC Rev 4	Construction Activity	Gross Wages Paid to Operatives	Gross Salaries Paid to Other Employees	Benefits in Kind	Social Security Schemes	Total Labour Costs	
						Value	%
410	Construction of buildings	23,351,727	12,670,589	5,147,547	1,514,970	42,684,833	**42.1**
421	Construction of roads and railways	3,359,054	1,426,502	828,861	385,574	5,999,991	**5.9**
422	Construction of utility projects	7,724	0	0	0	7,724	**0.0**
429	Construction of other civil engineering projects	20,870,610	7,262,362	2,783,437	727,797	31,644,206	**31.2**
431	Demolition and site preparation	10,210	31,962	11,719	0	53,891	**0.1**
432	Electrical, plumbing and other construction installation activities	6,559,493	3,351,754	1,035,964	630,552	11,577,763	**11.4**
433	Building completion and finishing	739,765	91,978	93,680	37,366	962,789	**0.9**
439	Other specialized construction activities	3,124,986	4,283,138	803,783	309,873	8,521,780	**8.4**
Total	**Value**	**58,023,569**	**29,118,285**	**10,704,991**	**3,606,132**	**101,452,977**	**100.0**
	Percentage	**57.2**	**28.7**	**10.6**	**3.6**	**100.0**	

Tables 3.5 and 3.6 show that small contractors contributed about 59 percent of the total labour cost whereas 41 percent was contributed by large contractors. This is explained by the fact that small contractors employed about 81.6 percent of total persons engaged in the construction industry leading to a large share of labour costs.

Analyzing the average labour cost per employee, it is observed that average labour cost per worker was TShs 1,131.5 thousand per year. Building completion and finishing had the highest average cost per worker of TShs 2,195.5 thousand per year, followed by demolition and site preparation with TShs 1,517.5 thousand (Figure 3.6). Construction of buildings and other specialized construction activities which constituted the highest percentage of persons employed in the construction industry had an average labour cost per worker of about TShs 1,261.8 thousand. It should be noted that gross wages paid to operatives and gross salaries paid to other workers accounted for a large share of total labour costs, i.e. about 86 percent.

Payments to employees in small contractors were relatively low, i.e. less than the minimum wage of TShs 150,000 per month this reflects the living hardships faced by employees in this sector. However, the average labour cost per employee in large contractors was TShs 240,000 per month.

Figure 3.6: **Average Labour Cost per Worker per Year of Small Contractors**



3.6 Labour Costs by Activity and Class

Presenting and discussing labour costs by activity and class is another way of analyzing data with with the focus on the distribution of labour costs across the construction classes for both large and small contractors. Data showing percentages and average labour costs for each class in each group have been used to present the results.

3.6.1 Distribution of Labour Costs of Large Contractors by Class

The results show that, out of the total labour costs of Tshs 71,211,384 thousand, Class I contractors was leading class with 60.3 percent of the total labour costs followed by Class III with 15.2 percent, Class II with 12.5 percent and Class VI with 12 percent of the total labour cost in this category.

Figure 3.7: Percentage Distribution of Labour Costs of Large Contractors by Class

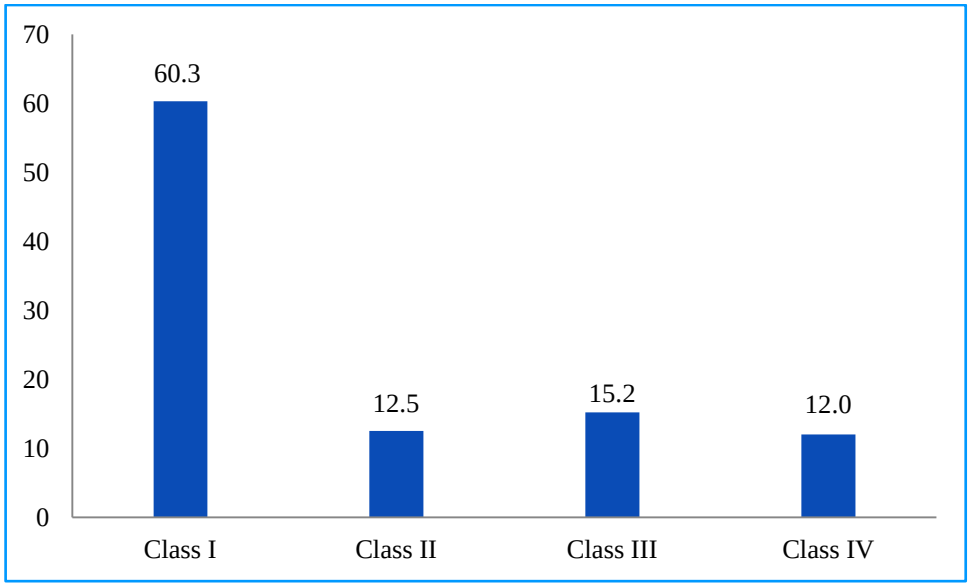
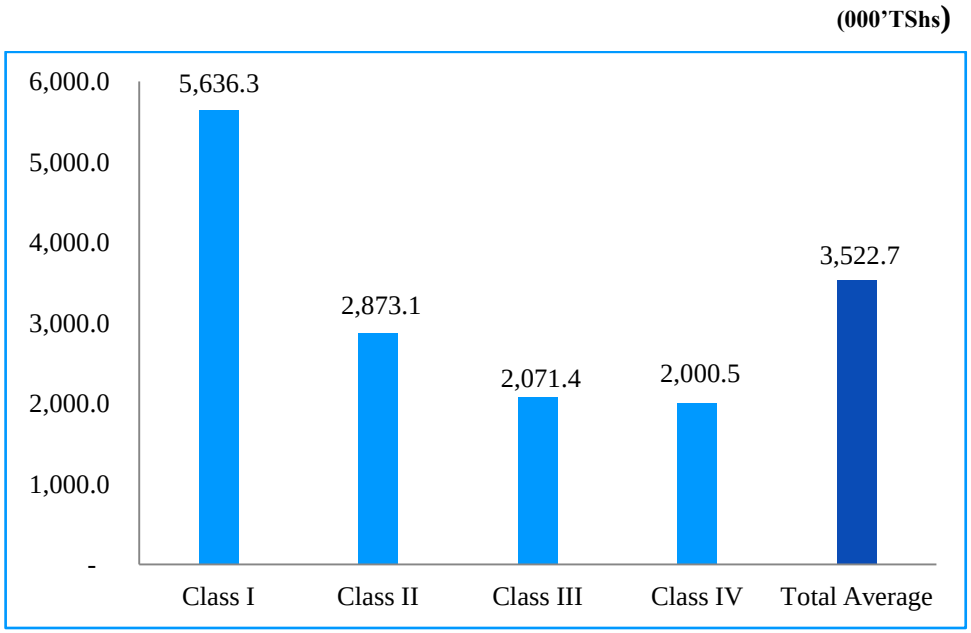


Figure 3.8 shows the distribution of labour cost of large contractors by class category. The result show that the total average labour cost per worker per year was TShs 3,523 thousand. Class I had the highest average labour cost per worker per year at TShs 5,636 thousand, followed by Class II with an average labour cost per worker per year of TShs 2,873 thousand, Class III with TShs 2,071 thousand and Class IV with an average labour cost per worker per year of TShs 2,001 thousand.

Figure 3.8: Average Labour Cost per Worker per Yearof Large Contractors by Class

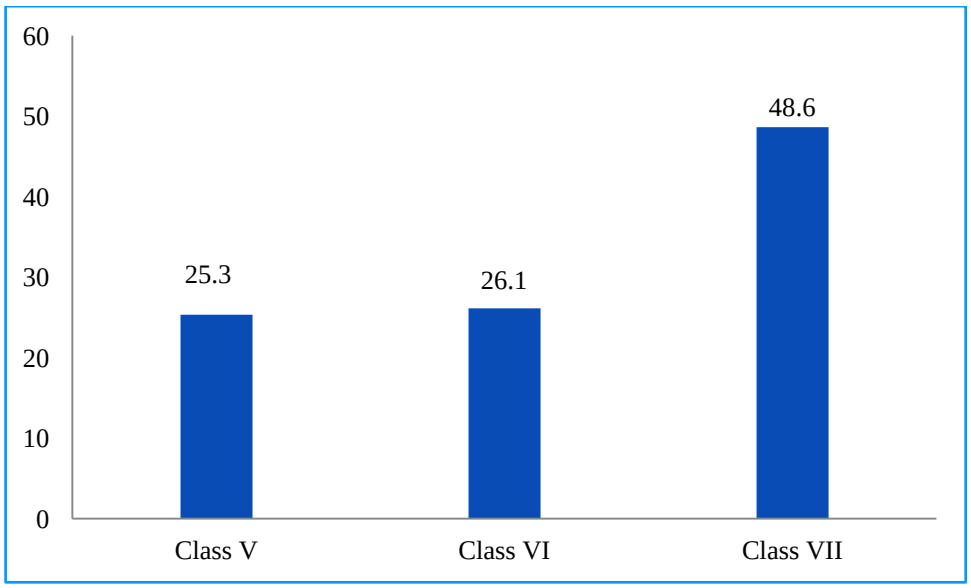


Basing on these results, it is clear that the average labour cost per worker and class has a direct relationship in the sense that the higher the class the higher the average cost per worker. This implies that gross wages paid to operatives and gross salaries paid to other employees were directly proportional to the classes. This can be attributed to the fact that the higher the class the higher the knowledge, skills and capital, and therefore the better the remuneration. This reason holds for other classes.

3.6.2 Distribution of Labour Costs of Small Contractors by Class

Figure 3.9 shows the distribution of labour costs in small contractors by class. The results show that, out of the total labour costs of Tshs 101,452,977 thousand, Class VII contractors had the largest share of 48.6 percent of the total labour costs followed by Class VI with a share of 26.1 percent and Class V with 25.3 percent of the total labour cost for small contractors.

Figure 3.9: Percentage Distribution of Labour Costs of Small Contractors by Class



3.6.2.1 Average Labour Cost per Worker per Year in Small Contractors by Class

Average labour cost per worker per year by class is computed by dividing total labour cost in a particular class by the number of persons engaged in the corresponding class. Figure 3.10 shows the average labour cost per worker per year for each class. The results show that the total average labour cost per worker per year was TShs 1,132 thousand. Class 5 had the highest average cost per employee of TShs 3,367 thousand per year, followed by Class 7

with an average labour cost per worker per year of TShs 1,170 thousand and Class 6 with an average labour cost per worker per year of TShs 924 thousand. It may be noted that, the total average labour cost per worker per year of TShs 1,132 thousand was below the government minimum wage of TShs 1,800 thousand.

3.6.2.2 Average Number of Normal Working Days and Hours per Week by Activity

The survey collected information on average number of working days and hours per week for large contractors. The survey findings as reported in Table 3.7 show that large contractors had on average 5.7 working days per week and for the majority of construction activities the average working days per week was 5.6.

The highest reported average working days per week was 6. Examining the results of working hours, it is found that the average working hours per week for construction activities was 46.2 hours per week. In construction of roads and railways, construction of utility projects and demolition and site preparation the average working hours was reported to be about 48 per week.

Table 3.7: Average Number of Normal Working Days and Hours per Week by Large Contractors by Activity.

ISIC Rev 4	Construction Activity	Average Working Days per week	Average Working Hours per week
410	Construction of buildings	5.6	43.5
421	Construction of roads and railways	5.6	48.1
422	Construction of utility projects	6	48
429	Construction of other civil engineering projects	5.6	46.4
431	Demolition and site preparation	6	48
432	Electrical, plumbing and other construction installation activities	5.5	42.7
433	Building completion and finishing	5.4	46.6
439	Other specialized construction activities	5.6	46.2
4	**Average**	**5.7**	**46.2**

The findings indicate that in some construction activities workers spent more hours at work than others even if average working days per week were nearly the same. Furthermore, the results show that average working days per week were relatively higher than those of government institutions which worked an average of five days per week.

3.7 Tanzania Construction Labour Market Characteristics

The Tanzania construction sector is a labour-intensive activity, with the capacity to provide extensive employment and income opportunities with very little investment. The industry provides a point of entry into the labour market for urban -rural migrant workers and it employs some of the least educated from the poor families. Construction is an "employment spinner" which can absorb the excluded. However, work in construction is not highly regarded and people work in the construction industry out of necessity rather than choice.

The social economic image of the industry in the eyes of workers, or potential workers, has changed in recent years as construction has led the way in the adoption of "flexible" labour practices. In Tanzania, the practice of recruiting labour through subcontractors and intermediaries is new phenomena but effective. But there is evidence that the proportion of workers employed through subcontractors and intermediaries, on temporary and casual terms, has increased in past decades while the permanent, directly employed workforce has remained stagnant.

The growth in the practice of outsourcing of labour through subcontractors that has occurred in Tanzania has allowed large construction companies (both public and private) to divorce themselves from the physical work of construction. Employment in small enterprises on casual and temporary terms, often through intermediaries has a profound effect upon the construction workforce and their labour rights and upon skill formation in the construction industry.

For the bulk of the workforce on temporary contracts, wages are set by the labour market. Wide fluctuations in wages are common, in line with the cyclical (and sometimes seasonal) fluctuations in construction output and labour demand. In Tanzania, where there are more potential workers than jobs, earnings may be barely above subsistence. Piece-work is the predominant wage form and a 10-12 hour day, six days per week, is the norm in Tanzania.

CHAPTER FOUR

INPUTS UTILIZATION AND CONSTRUCTION COSTS

4 Introduction

Chapter four examines inputs utilization, construction costs and value addition in the construction sector for the year 2010. The chapter is divided into five sections. Section 4.1, describes the costs of utilities consumed namely; electricity, water and waste water charges whereas Section 4.2 presents the costs of fuel consumed at producer's price. Materials and supplies purchased at producer's price are described in Section 4.3. Sections 4.4 and 4.5 discuss expenditure on services and construction costs at purchaser's price in the construction sector respectively.

4.1 Utilities Consumed

The construction industry consumes a significant amount of raw materials most of which require large amounts of energy to process and produce. It is estimated that as much as 50 percent of the materials extracted from the earth are transformed into construction materials. Moreover, these materials account for approximately 50 percent of the waste generated prior to recycling (UN Global Compact and Accenture, 2012). Working with its customers, the industry has significant opportunities to become more energy efficient primarily through the use of less virgin raw material and the reuse/recycling of waste.

Table 4.1 shows the cost of utilities consumed during the operation process for large contractors. The total cost of utilities was TShs 13,627,289 thousand, out of which, cost of water was TShs 8,127,189 thousand (59.6 percent), cost of electricity consumed was TShs 4,899,189 thousands (36 percent) and that of waste water was TShs 600,911 thousand (4.4 percent).

The total utility cost was incurred as follows: construction of buildings (TShs 1,525,871 thousand, 11.2 percent), construction of roads and railways (TShs 710,717 thousand, 5.2 percent), construction of utility projects (TShs 320 thousand, 0.002 percent). Moreover, construction of other civil engineering projects cost accounted for TShs 8,810,426 thousand (64.7 percent). Costs incurred for demolition and site preparation were TShs 7,907 thousand (0.06 percent), whereas electrical, plumbing and other construction installation activities

costs were TShs 1,042,155 thousands (7.6 percent). The costs incurred for building completion and finishing were Tshs 12,340 thousand (0.09 percent), whereas other specialized construction activities costs were TShs 1,517,553 thousand (11.1 percent).

Table 4.1: Utility Charges for Large Contractors at Purchaser's Price by Activity

(000' TShs)

ISIC Rev 4	Construction Activity	Electricity	Water	Waste Water	Total
410	Construction of buildings	754,632	622,232	149,007	**1,525,871**
421	Construction of roads and railways	693,621	16,256	840	**710,717**
422	Construction of utility projects	240	80	0	**320**
429	Construction of other civil engineering projects	1,407,213	7,272,513	130,700	**8,810,426**
431	Demolition and site preparation	7,907	0	0	**7,907**
432	Electrical, plumbing and other construction installation activities	764,616	101,543	175,996	**1,042,155**
433	Building completion and finishing	10,019	1,648	673	**12,340**
439	Other specialized construction activities	1,260,941	112,917	143,695	**1,517,553**
	Total	**4,899,189**	**8,127,189**	**600,911**	**13,627,289**

Table 4.1 shows that electricity accounted for 36.0 percent of the total utility cost; water consumed accounted for 59.6 percent, while waste water costs were 4.4 percent. Analysis of utility costs was done for construction of roads and railways; construction of utility projects; construction of other civil engineering projects; demolition and site preparation; electrical, plumbing and other construction installation activities; building completion and finishing and other specialized construction activities.

The survey results also show that most of the construction activities had the highest cost in electricity except construction of other civil engineering projects where the highest cost was in regard to water. Construction of utility projects accounted for very low utility costs compared to other construction activities. Demolition and site preparation had no costs for water and waste water. However, high water costs with regard to the construction of other civil engineering projects. Demolition and site preparation having no costs in water and water waste is possible due to the nature of the activity. World situation and the fuel crisis have contributed to escalation of prices of all inputs in construction.

4.2 Fuel Consumed at Purchaser's Price

Construction Industry is the largest sector in respect of consumption of energy. It consumes around 2/5th of the total energy consumed throughout the world. Resource utilization in case of construction industry amounts to half of the total resource used all over the world, (UN

Global Compact and Accenture, 2012). In this section, the cost of fuel is based on the price the purchaser actually pays for the products including any taxes less subsides on the products. This survey, collected data on the fuel purchased, for machinery, vehicles and for other purposes. Types of fuel recorded were diesel, gasoline, LPG and others.

Figure 4.1 shows total fuel consumed by fuel category. The total fuel consumed by large contractors during 2010 cost TShs 47,044,643 thousand in total. The distribution of total fuel consumption costs were TShs 39,086,499 thousand (83.1 percent) for diesel, TShs 6,709,864 thousand (14.3 percent) for gasoline while LPG cost Tshs 475,370 thousands (1.0 percent) and other type of fuel cost TShs 772,910 thousand (1.6 percent).

Figure 4.1: Percentages of Total Value of Fuel Consumed at Purchaser's Price by Type of Fuel

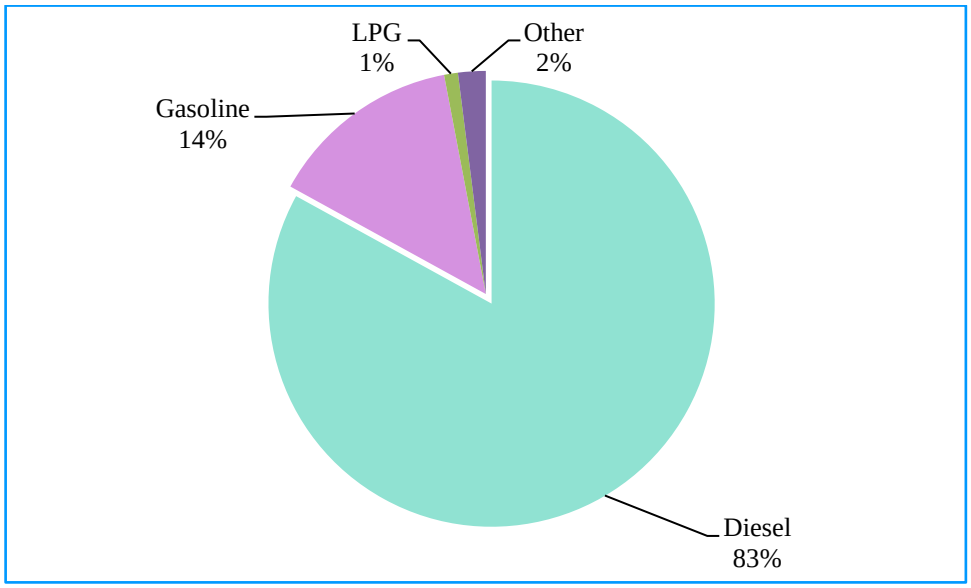
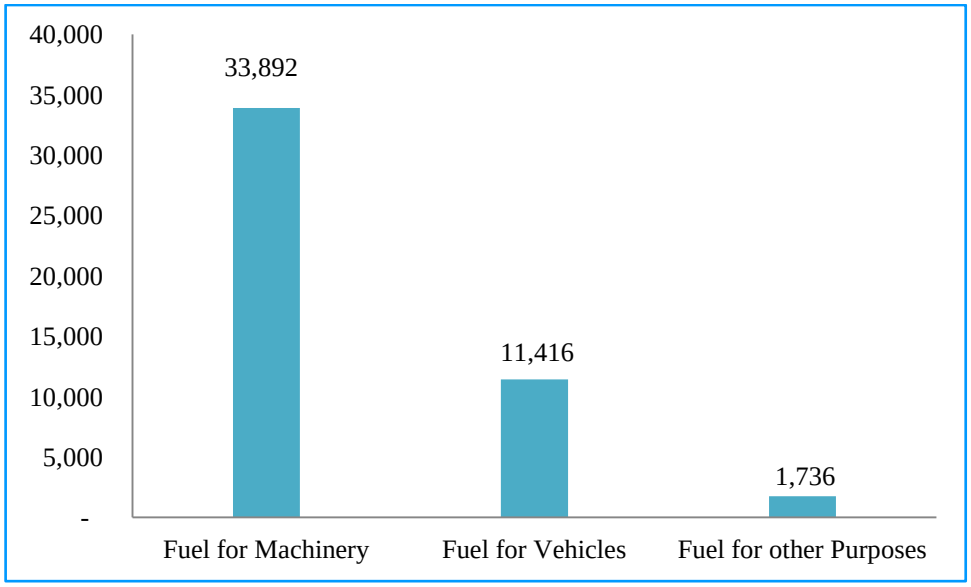


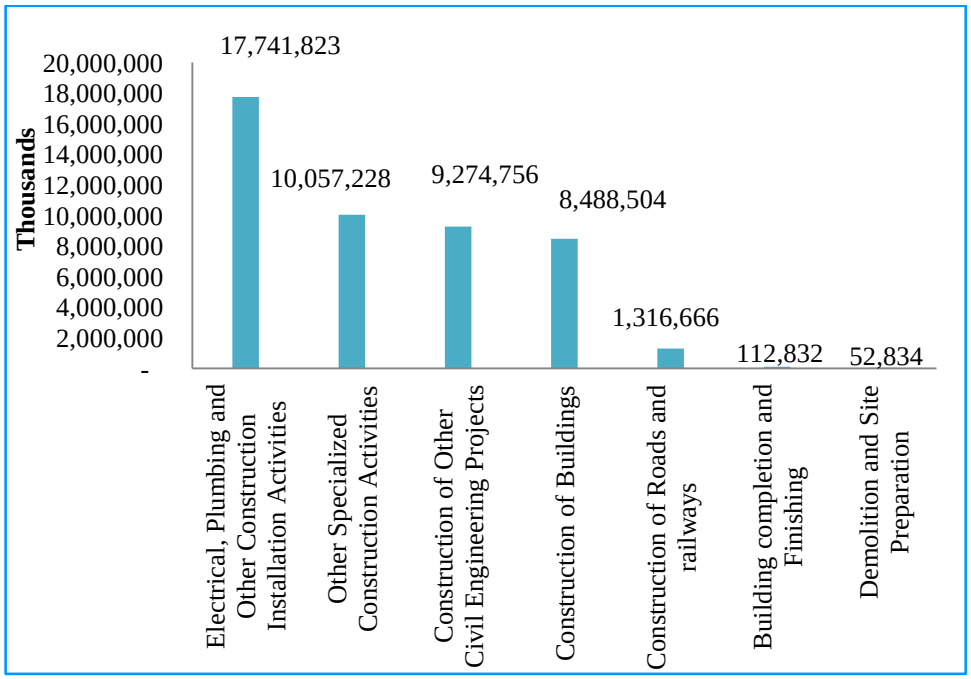
Figure 4.2 indicates that out of total costs of fuel purchased, cost of fuel for machinery was TShs 33,892,321 thousand (72.0 percent); the cost of fuel for vehicles was TShs 11,415,855 thousand (24.27 percent) and cost of fuel for other purposes was TShs 1,736,467 thousand (3.7 percent).

Figure 4.2: Total Fuel Consumed at Purchaser's Price by Type of Use



Distribution of fuel costs by activity was as follows: construction of buildings, TShs 8,488,504 thousand (18.0 percent); construction of roads and railways, TShs1,316,666 thousand (2.8 percent); construction of other civil engineering projects, TShs 9,274,756 thousand (19.7 percent); demolition and site preparation, TShs 52,834 thousand (0.1 percent); electrical, plumbing and other construction installation activities, TShs 17,741,823 thousand (37.7 percent); building completion and finishing, TShs 112,832 thousand, (0.2 percent); and other specialized construction activities, TShs 10,057,228 thousand (21.4 percent).

Figure 4.3: Total Value of Fuel Consumed at Purchaser's Price by Activity



Tables 4.2 (a) to 4.2(d) show detailed costs of fuel consumed at purchaser's price by activity, for machinery, vehicles, other purposes, and total cost of fuel consumption. The survey result shows that, construction of utility projects did not use/consume diesel, gasoline, LPG and other fuels for their machinery, equipment and vehicles. Also the demolition and site preparation did not use/consume gasoline, LPG and other fuels for machinery and vehicles. Costs of fuel consumption for construction of roads and railways were smaller than fuel costs incurred in electrical, plumbing and other construction; other specified construction activities; construction of other civil engineering projects and construction of buildings.

Construction of utility projects involves construction of water dams, electricity lines, also water and sewage pipes, etc. It is not possible that these operations did not consume any type of fuel. It is likely that the data were missed or added to other costs. For the demolition and site preparations, to have no costs for gasoline, LPG and other type of fuel for use in machinery and vehicles, it is possible since the activity involves heavy machinery which always use diesel. Normally, construction of roads and railways activities consume large quantities of fuel but this survey shows relatively small costs because the number of establishments surveyed was smaller than expected.

The construction industry has opportunities both to contribute to the broader social goals of the initiative, and to realize enhanced business value in the areas of revenue growth, cost reduction, brand enhancement and risk management.

The business opportunity for the construction industry is two-fold:

- Collaborate within the supply chain to improve the energy efficiency of operations.
- Engage stakeholders to improve the energy efficiency of new construction and existing buildings.

From an operational perspective, the value-creation opportunities are primarily cantered on cost reduction and risk management. There are also opportunities to drive intangible value through brand enhancement, based on a company's overall use of energy and stakeholder perception of sustainable business practices.

Significant opportunities lie in the construction and retrofitting of green buildings, where demand is expected to rise dramatically. This is a significant value creation opportunity related primarily to revenue growth, but also to brand enhancement and risk mitigation. In general, much of the

growing demand for green building construction is in developing countries, where new construction dominates. In developed countries, new construction accounts for only about one percent of buildings, so the focus should be retrofitting and renovating existing buildings to reduce energy consumption.

Table 4.2 (a): Fuel for Machinery Consumed by Large Contractors at Purchaser's Price by Activity

(000' Tshs)

ISIC Rev 4	Construction Activity	Diesel	Gasoline	LPG	Other	Total
410	Construction of buildings	2,975,186	841,806	29,640	324,778	**4,171,410**
421	Construction of roads and railways	1,122,243	11,710	1,080	0	**1,135,033**
422	Construction of utility projects	0	0	0	0	**0**
429	Construction of other civil engineering projects	4,795,957	887,248	120,190	121,110	**5,924,505**
431	Demolition and site preparation	0	0	0	0	**0**
432	Electrical, plumbing and other construction installation activities	16,069,008	22,744	160	8,890	**16,100,802**
433	Building completion and finishing	1,260	456	0	0	**1,716**
439	Other specialized construction activities	3,847,274	2,657,971	8,732	44,878	**6,558,855**
4	**Total**	**28,810,928**	**4,421,935**	**159,802**	**499,656**	**33,892,321**

Table 4.2 (b): Fuel for Vehicles Consumed by Large Contractors at Purchaser's Price by Activity

(000'TSshs)

ISIC Rev 4	Construction Activity	Diesel	Gasoline	LPG	Other	Total
410	Construction of buildings	2,281,678	907,889	190,376	69,605	**3,449,548**
421	Construction of roads and railways	151,830	10,749	120	1,000	**163,699**
422	Construction of utility projects	0	0	0	0	**0**
429	Construction of other civil engineering projects	2,275,256	596,967	7,139	18,926	**2,898,288**
431	Demolition and site preparation	52,834	0	0	0	**52,834**
432	Electrical, plumbing and other construction installation activities	1,180,091	332,181	9,654	33,535	**1,555,461**
433	Building completion and finishing	78,592	2,536	50	0	**81,178**
439	Other specialized construction activities	3,008,381	130,775	22,548	53,143	**3,214,847**
4	**Total**	**9,028,662**	**1,981,097**	**229,887**	**176,209**	**11,415,855**

Table 4.2 (c): Fuel for Other Purposes Consumed by Large Contractors at Purchaser's Price by Activity

(000,TShs)

ISIC Rev 4	Construction Activity	Diesel	Gasoline	LPG	Other	Total
410	Construction of buildings	666,167	119,673	37,330	44,376	**867,546**
421	Construction of roads and railways	16,861	1,073	0	0	**17,934**
422	Construction of utility projects	0	0	0	0	**0**
429	Construction of other civil engineering projects	370,049	80,213	0	1,701	**451,963**
431	Demolition and site preparation	0	0	0	0	**0**
432	Electrical, plumbing and other construction installation activities	50,224	31,081	975	3,280	**85,560**
433	Building completion and finishing	29,728	210	0	0	**29,938**
439	Other specialized construction activities	113,880	74,582	47,376	47,688	**283,526**
	Total	**1,246,909**	**306,832**	**85,681**	**97,045**	**1,736,467**

Table 4.2 (d): Total Fuel Consumed by Large Contractors at Purchaser's Price by Activity

(000'TShs)

ISIC Rev 4	Construction Activity	Diesel	Gasoline	LPG	Other	Total
410	Construction of buildings	5,923,031	1,869,368	257,346	438,759	**8,488,504**
421	Construction of roads and railways	1,290,934	23,532	1,200	1,000	**1,316,666**
422	Construction of utility projects	0	0	0	0	**0**
429	Construction of other civil engineering projects	7,441,262	1,564,428	127,329	141,737	**9,274,756**
431	Demolition and site preparation	52,834	0	0	0	**52,834**
432	Electrical, plumbing and other construction installation activities	17,299,323	386,006	10,789	45,705	**17,741,823**
433	Building completion and finishing	109,580	3,202	50	0	**112,832**
439	Other specialized construction activities	6,969,535	2,863,328	78,656	145,709	**10,057,228**
4	**Total**	**39,086,499**	**6,709,864**	**475,370**	**772,910**	**47,044,643**

4.3 Materials and Supplies Purchased

4.3.1 Description of Materials and Supplies Purchased at Purchaser's Price

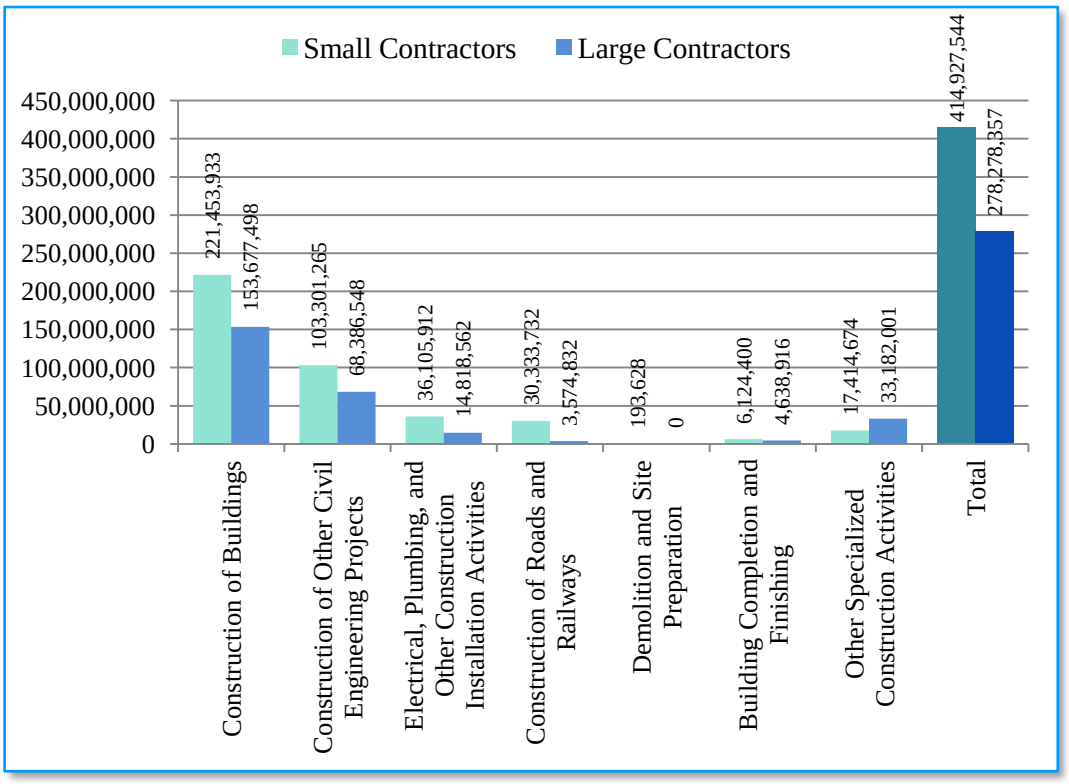
Purchaser's price refers to the price the purchaser actually pays for the products including any taxes less subsides on the products. The types of materials and supplies purchased are as presented in Table 4.3.

Table 4.3: Materials and Supplies

Type of Material		Definition
(i)	Cement	The dry powder subsistence which is made primarily from limestone, clay, and gypsum in a high temperature process and is used in building.
(ii)	Sand and Rock	These are naturally occurring granular material composed of finely divided rock and mineral particles, while rock is the earth's outer solid layer.
(iii)	Aggregates (macadam)	A broad category of coarse particular used in construction, including gravel, crushed stone, slag and rcycled concrete.
(iv)	Blocks	These are units of construction**.**
(v)	Steel/iron and sheets	These are generally hard, strong durable alloys of iron and carbon widely used as structural materials.
(vi)	Electrical fittings	These are electrical equipments broken down into electrical, electronic, cable, circuit, switches, circuit breaker etc.
(vii)	Plumbing (water fittings)	The trade of working with pipes, tubing and plumbing fixture for drinking water systems and drainage of waste.
(viii)	Tile and sanitary wares	These are items including bath showers, bath fittings bath tubs etc.
(ix)	Timber (carpentry and joinery)	A wide range of wood products with a focus on decorative.
(x)	Paint	Any liquid, liquefiable, mastic compound which after application to substance in a thin layer is converted to an opaque solid film.
(xi)	Other materials	These are other materials bought by the purchaser.

Figure 4.4 and Tables 4.4(a) and 4.4(b) show the values of purchases for materials and supplies at purchaser's price by activity for both large and small contractors. The first column shows ISIC Revision 4 level 3 whose descriptions have been presented in the second column. The subsequent columns show purchases for different materials and supplies. The values are absolute figures in thousand Tanzanian Shillings with their totals given in the last row. The first three tables report values for large contractors and the last three report values for small contractors.

Figure 4.4: Purchases of Materials and Supplies at Purchaser's Price (000 TShs)



Out of the total value (693,207,399 thausand) of materials and supplies purchased, small contractors purchases were worth TShs 414,929,142 thousand (60%) and those of large contractors were of TShs. 278,278,357 thousand (40%). When analyzing purchase of materials and supplies by type of activity, it was found that, among the 8 activities, construction of buildings had the highest purchases of Tshs. 375,131,431 thousand of which TShs. 153,677,498 (41%) thousand were spent by large contractors and Tshs. 221,453,933 thousand (59%) were spent by small contractors. Moreover, purchases for construction of other civil engineering projects amounted to TShs. 171,687,813 thousand of which large contractors spent TShs. 68,386,548 thousand,(40%) whereas small contractors spent TShs. 103,301,265 thousand (60%).

Contractors dealing with electrical, plumbing and other construction installation activities purchased materials and supplies worth TShs 50,924,474 thousands of which the share of small contractors was TShs 36,105,912 thousand (71%). Contractors in the construction of road and railway spent TShs 33,908,564 thousand on materials of which small contractors spent a total of TShs 30,333,132 thousand (89%). Those whose business was building completion and finishing had purchases of TShs 10,763,316 thousand with TShs 6,124,400 thousand (60%) being the share of small contractors. Under other specialized construction activities, small contractors spent TShs

17,414,674 thousand (34%) on purchases out of a total TShs 50,596,674 thousand spent by the contractors in this category.

Construction of utility projects, and demolition and site preparation had the lowest purchases of TShs 1,598 thousand and Tshs. 193,628 thousand respectively and small contractors were the sole purchasers (100%) of materials and supplies for these two activities.

Table 4.4 (a): Materials and Supplies Bought by Large Contractors at Purchaser's Price by Activity

(000'TShs)

ISIC Rev 4	Construction Activity	Cement	Sand / Rock	Aggregates	Blocks	Steel/iron/bars sheets	Electrical fittings
410	Construction of buildings	26,882,643	2,869,563	4,569,939	3,346,820	22,388,006	42,878,124
421	Construction of roads and railways	486,592	261,515	331,349	69,697	281,876	677,656
422	Construction of utility projects	0	0	0	0	0	0
429	Construction of other civil engineering projects	16,845,820	2,489,592	3,988,463	6,859,034	14,602,536	2,981,717
431	Demolition and site preparation	0	0	0	0	0	0
432	Electrical, plumbing and other construction installation activities	9,883	12,369	67,005	568,255	402,316	4,632,722
433	Building completion and finishing	5,200	1,388,497	3,200	120,000	157,324	5,000
439	Other specialized construction activities	1,816,885	941,825	593,339	942,765	7,938,965	563,274
4	**Total**	**46,047,023**	**7,963,361**	**9,553,295**	**11,906,571**	**45,771,023**	**51,738,493**

Table 4.4(a) Cont.: Materials and Supplies Bought by Large Contractors at Purchaser's Price by Activity

(000'TShs)

ISIC Rev 4	Construction Activity	Plumbing PVC	Plumbing Metal	Plumbing Others	Tiles/ Sanitary wares	Timber	Paint
410	Construction of buildings	3,528,618	1,570,154	823,184	2,441,029	3,292,472	1,817,597
421	Construction of roads and railways	258,816	52,157	466,025	620	15,165	18,806
422	Construction of utility projects	0	0	0	0	0	0
429	Construction of other civil engineering projects	2,700,477	1,224,782	1,284,780	1,146,572	1,837,143	1,344,750
431	Demolition and site preparation	0	0	0	0	0	0
432	Electrical, plumbing and other construction installation activities	2,423,344	218,767	3,678,555	24,195	27,822	9,038
433	Building completion and finishing	250	500	400	1,232,526	2,000	1,500
439	Other specialized construction activities	1,509,805	1,148,760	193,781	2,211,409	857,862	3,539,359
4	**Total**	**10,421,310**	**4,215,120**	**6,446,725**	**7,056,351**	**6,032,464**	**6,731,050**

Table 4.2 (a) Cont.: Materials and Supplies Bought by Large Contractors at Purchaser's Price by Activity

(000'TShs)

ISIC Rev 4	Construction Activity	Openings Metals	Openings PVC	Openings Others	Others	Total
410	Construction of buildings	1,853,086	15,626,507	7,096,592	12,693,164	153,677,498
421	Construction of roads and railways	190,584	385,558	40,928	37,488	3,574,832
422	Construction of utility projects	0	0	0	0	0
429	Construction of other civil engineering projects	556,167	182,828	1,334,203	9,007,684	68,386,548
431	Demolition and site preparation	0	0	0	0	0
432	Electrical, plumbing and other construction installation activities	1,281,913	43,187	74,231	1,344,960	14,818,562
433	Building completion and finishing	200	300	100	1,721,919	4,638,916
439	Other specialized construction activities	1,110,533	983,348	25,394	8,804,697	33,182,001
4	**Total**	**4,992,483**	**17,221,728**	**8,571,448**	**33,609,912**	**278,278,357**

In examining the types of materials and supplies purchased, the survey reveals that, for the large contractors, electrical fittings had the highest value of TShs 51,738,493 thousand (19%) followed by cement with TShs 46,047,023 thousand (17%) and the third was steel/iron bars which cost TShs 45,771,023 thousand (16%). The lowest purchases were plumbing metal with TShs. 4,215,120 thousand (2%) and openings metals with TShs. 4,992,483 thousand (2%). For small contractors, the materials with highest value were cement with TShs 70,368,479 thousand (17%) and aggregates with. Tshs 33,949,365 thousand (8%). The lowest purchases were water charges with Tshs. 5,673,136 thousand (1.4%).

Electricity Fittings

During the final stages of construction, all buildings may include fixtures and fittings. There is a distinction between fixtures and fittings and the national law relating to them continues to evolve, usually through legal dispute. Therefore, it is essential that we should try to understand what the various terms mean and how they should be used This is particularly important in the construction industry where projects are being procured in ever more comprehensive ways and facilities management is increasingly overlapping with the construction process. Tanzania has no definitive lists for what constitute fixtures or fittings, and specific contract types or location may vary the status of fixtures and fittings for any given project.

In practice fixtures include, fixed partitions and doors; electrical installations; electric sockets; light fittings; security alarm systems; television aerials and satellite dishes; fires and fire surrounds; central-heating boilers and radiators; plumbing installations; bathroom suites and other sanitary ware installations; vanity furniture; cubicles/ shower screens; kitchen units; sinks; integrated

appliances; adhered floor finishes; door furniture; built-in furniture, including proprietary reception desks, worktops; built in wardrobes/ cupboards/ shelf units (e.g. if they use a wall to form one of their sides and would thus be incomplete if they were removed); wall paintings and plants and shrubs in land belonging to the property.

Fittings/ furnishings include demountable partition systems; telephone systems; CCTV systems; edge-fitted and loose-laid carpets; blinds, curtains and curtain rails; paintings or mirrors that are not bolted but hung or screwed to a wall; notice boards; free-standing ovens, refrigerators, washing machines and other white goods; lockers, changing room furniture etc; beds/sofas and other free standing items of furniture or equipment; computers and other it equipment; lamps and lampshades; potted plants and shrubs (in containers).

Increasing cement consumption in the construction sector

Cement is the second most important material consumed in the Tanzania construction sector. It may be noted that the cement industry sector contributes to the development of the important infrastructural facilities needed to speed up economic development of Tanzania. Cement is the key ingredient for making concrete as well as foundation of any construction. Concrete is used more than any other man-made material and is second to water as the most used material in construction.

All these infrastructural developments require cement. Other important features such as residential properties, commercial buildings, hospitals, fibre optic cables, service centres etc. are also important for national development.

A recent report shows that the local cement production in Tanzania is expected to grow by 18 per cent in 2012, (URT, 2012). However, this speed will stand on firm ground if the retail business, infrastructure development and mining investments are sustained. Today, the construction and housing sector which has compounded the annual growth rate of about 10 percent is the main drive of cement consumption, therefore pushing up demand of the commodity. Tanzania's current production capacity stands at 3.0 million metric tonnes while the demand of 2.1 milion metric tonnes is still a net importer and there are plans to increase capacity by 750,000 metric tonnes

The continued growth in the construction industry corresponds with the increased cement demand and production in the country. The industry estimates that 90 percent of cement consumed is used for residential purposes, the majority of which is for the construction of new buildings.

The usage of cement product in the country has increased proportionally with the demand of the product.

This cement is used either for making blocks or concrete which are then used for a variety of purposes that includes the following; residential buildings, commercial offices, manufacturing and mining facilities, roads and bridges, water and sewerage treatment facilities, harbours and reservoirs. Infrastructure made with cement has a number of benefits such as newly constructed roads and those which are under repair which lead to reduced travel time. Residential structures built with cement products have a longer lifespan as they provide more security and more soundproof and fireproof and have better temperature control than structures built with other products. Buildings made of concrete need less energy for heating and cooling than those made of other materials. Cement is an excellent insulator and concrete buildings remain cool in hotweather and warm in the cold weather.

Table 4.4 (b): Materials and Supplies Bought by Small Contractors at Purchaser's Price by Activity

(000'TShs)

ISIC Rev 4	Construction Activity	Cement	Sand/rocks	Aggregates	Blocks	Steel/iron bars and sheets	Electrical fittings
410	Construction of buildings	37,832,041	14,618,596	12,519,693	12,895,412	13,730,954	11,303,322
421	Construction of roads and railways	11,169,349	274,549	8,667,549	82,004	181,587	12,928
422	Construction of utility projects	0	0	0	0	0	0
429	Construction of other civil engineering projects	17,987,759	6,500,123	11,557,870	7,233,711	9,166,383	3,011,161
431	Demolition and site preparation	19,236	21,737	0	19,245	25,969	3,107
432	Electrical, plumbing and other construction installation activities	1,635,744	342,947	385,182	249,891	5,764,385	9,488,693
433	Building completion and finishing	603,720	64,160	76,737	35,341	45,279	52,293
439	Other specialized construction activities	1,120,630	612,087	742,334	358,285	1,171,075	3,573,813
4	**Total**	**70,368,479**	**22,434,199**	**33,949,365**	**20,873,889**	**30,085,632**	**27,445,317**

Table 4.4(b) Cont..: Materials and Supplies Bought by Small Contractors at Purchaser's Price by Activity

(000'TShs)

ISIC Rev 4	Construction Activity	Plumbing	Tiles and sanitary wares	Timber	Paint	Electricity	Water charges
410	Construction of buildings	5,253,754	7,247,913	8,750,582	6,174,105	3,682,764	2,380,706
421	Construction of roads and railways	429,570	112,047	715,807	185,829	50,827	370,990
422	Construction of utility projects	0	0	0	0	710	888
429	Construction of other civil engineering projects	2,944,983	1,883,914	4,881,279	2,216,302	9,842,505	2,453,702
431	Demolition and site preparation	0	25,273	0	26,777	8,041	888
432	Electrical, plumbing and other construction installation activities	1,538,834	162,629	173,489	501,985	2,086,383	220,320
433	Building completion and finishing	25,866	68,658	405,853	60,342	107,486	97,800
439	Other specialized construction activities	1,114,798	244,807	726,969	2,370,715	185,068	147,842
4	**Total**	**11,307,805**	**9,745,241**	**15,653,979**	**11,536,055**	**15,963,784**	**5,673,136**

Table 4.4(b) Cont.: Materials and Supplies Bought by Small Contractors at Purchaser's Price by Activity

(000'TShs)

ISIC Rev 4	Construction Activity	Paid taxes	Metal Openings	Other Openings	Others	Total
410	Construction of buildings	10,887,838	2,642,527	935,602	70,598,124	**221,453,933**
421	Construction of roads and railways	2,956,145	1,471,266	716,031	2,937,254	**30,333,732**
422	Construction of utility projects	0	0	0	0	**1,598**
429	Construction of other civil engineering projects	2,724,711	2,327,202	3,625,785	14,943,875	**103,301,265**
431	Demolition and site preparation	17,756	0	25,599	0	**193,628**
432	Electrical, plumbing and other construction installation activities	3,532,131	509,744	1,232,358	8,281,197	**36,105,912**
433	Building completion and finishing	164,969	0	4,291,144	24,752	**6,124,400**
439	Other specialized construction activities	958,478	2,704,665	85,774	1,297,334	**17,414,674**
4	**Total**	**21,242,028**	**9,655,404**	**10,912,292**	**98,082,536**	**414,929,142**

4.4 Expenditure on Services at Purchaser's Price

These are various expenses incurred on services by an enterprise including taxes less subsides on the products. Table 4.5 shows forms of expenditure on services.

Table 4.5: Type of Expenditure on Services

Type of Expenditure		Definitions
(i)	Printing	The process of reproducing text
(ii)	Postage	Fee paid for postal services
(iii)	Bank Charges	The amount charged by banks as fee for operational services rendered
(iv)	Warehousing, storage and handling charges	The costs of storage and handling (taking care) of goods in a commercial building
(v)	Hire of transport	Cost of transport that is not associated with production e.g. transport to and from work and other business transactions of the establishment
(vi)	Security services	Expenses paid for a firm which provides services or offers or assures safety to the enterprise
(vii)	Consultancy and management services	These include research and development advertising, publicity, etc
(viii)	Expenses on air ticket	Cost of air transport
(ix)	Rental of machinery and equipment	Cost of hiring plant, machinery, and other fixed assets
(x)	Expenditure on environment protection services	Cost of services such as training, information and advice relating to chemical safety, storage, handling and disposal of chemical and radio-active wastes, incompatible chemical combinations and environmental legislation
(xi)	Solid waste (private collection)	These are wastes either in solid or semi-solid form
(xii)	Liquid waste (private collection & monitoring)	Is liquid that has been adversely affected in quality by being contaminated and it comprises of waste discharged by domestic residences, commercial properties, industry

Table 4.5 Cont..: Type of Expenditure on Services

Type of Expenditure		Definitions
(xiii)	Hazardous waste	Comprises all toxic chemicals, radioactive materials, and biologic or infectious waste
(xiv)	Research and development	These are creative works undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of human, culture and society and the use of this stock of knowledge to devise new applications
(xv)	Payment for works subcontracted	Payment made for a contract that assigns some of the obligations of a prior contract to another party
(xvi)	Rental of premises	Amount charged for hiring out
(xvii)	Minor repairs and maintenance	All actions which have the objective of retaining or restoring an item in or to a state in which it can perform its required function
(xiii)	Machinery and equipment	These are assets consisting of other machinery and equipment other than those which are acquired by household for final consumption
(xix)	Vehicles	Are non-living means of transport such as bicycles, cars, motorcycles, trains, ships, boats, and aircraft but only those connected with industrial activity
(xx)	Building	Any man-made structure used or intended for supporting or sheltering any use of continuous occupancy or act of construction
(xxi)	Other	Refers to other minor maintenance
(xxii)	Business services	Are legally recognized organized entities designed to provide goods and services to consumers
(xxiii)	Accounting, legal, auditing	The art of summarizing in significant manner in terms of money transactions and events of financial character and interpreting the results thereof, and elaboration of rights and responsibilities in a variety of ways and the examination of records or financial accounts to check their accuracy
(xxiv)	Advertising and promotion	Bringing a product to the attention of potential and current customers and keeping the product in the minds of the customers and help stimulate the demand for the products
(xxv)	Sponsorship and sport activities	Supporting an event activity or person where the sport activities are governed by a set of rules or customs and often engaged in competition
(xxvi)	Other	Refers to other business services
(xxvii)	Other services	Are other services incurred as expenses by the enterprises

Table 4.6 shows the expenditure on services at purchaser's price (excluding VAT) by activity for large contractors in 2010. A total of Tshs.155,018,229 thousand spent out of which construction of buildings incurred Tshs.549,247 thousand (0.35 percent) for printing activity. Expenditure on printing service for electrical, plumbing and other construction installation activities amounted to Tshs 491,746 thousand (0.32 percent). Printing services' expenditure for construction of other civil engineering projects stood at Tshs. 344,779 thousand (0.22 percent).

Analysis of expenditure on services at purchaser's price (excluding VAT) by activity also indicates that out of a total of TShs.155,018,229 thousand, expenditure on postage services for construction

of buildings was Sh. 610,676 thousand **(**0.39 percent). This was the largest expenditure on postage services for the construction activity. Expenditure on postage services for electrical, plumbing and other construction installation activities was second at Tshs.510,068 thousands (0.33 percent) whereas postage services' expenditure by construction of other civil engineering projects was third with TShs. 462,311 thousand (0.30 percent).

The Table also reports that out of a total of TShs. 155,018,229 thousand, expenditure on bank charges for construction of buildings which was Tshs. 2,621,287 thousand (1.7 percent), was the highest for a construction activity. Expenditure on bank charges for other specialized construction activities stood second at T.Sh.1,267,243 thousand (0.82 percent). This was followed by electrical, plumbing and other construction installation activities with bank charges expenditure of Tshs 1,066,795 thousand (0.69 percent).

Table 4.6: Expenditure on Services by Large Contractor at Purchaser's Price (excluding VAT) by Activity

(000' Tshs)

ISIC. Rev 4	Construction Activity	Printing	Postage	Bank charges	Warehousing storage handling charges	Hire Transport	Security services
410	Construction of buildings	549,247	610,676	2,621,287	837,385	3,052,918	1,408,376
421	Construction of roads and railways	17,926	16,783	372,320	31,122	404,999	76,784
422	Construction of utility projects	30	15	90	0	0	0
429	Construction of other civil engineering projects	344,779	462,311	2,169,536	516,252	3,264,587	356,116
431	Demolition and site preparation	0	0	0	35,499	0	0
432	Electrical, plumbing and other construction installation activities	491,746	510,068	1,066,795	321,883	1,650,511	769,023
433	Building completion and finishing	6,356	13,917	24,877	23,964	50,194	26,003
439	Other specialized construction activities	1,412,350	378,538	1,267,243	200,776	1,575,305	2,517,683
4	**Total**	**2,822,434**	**1,992,308**	**7,522,148**	**1,966,881**	**9,998,514**	**5,153,985**

Table 4.6 Cont.: Expenditure on Services by Large Contractors at Purchaser's Price (excluding VAT) by Activity

(000 TShs)

ISIC Rev 4	Construction Activity	Consultancy management services	Expenses on air tickets	Rental machinery equipment	Solid Waste	Liquid Waste	Hazardous Waste
410	Construction of buildings	801,955	1,450,054	2,477,587	65,602	10,510	4,382
421	Construction of roads and railways	89,588	50,819	101,359	6,167	2,050	1,060
422	Construction of utility projects	0	0	0	0	0	0
429	Construction of other civil engineering projects	609,463	1,455,499	3,847,557	78,219	5,736	3,275
431	Demolition and site preparation	8,640	0	0	0	260,000	36,240
432	Electrical, plumbing and other construction installation activities	1,659,227	469,155	355,144	13,282	4,756	17,760
433	Building completion and finishing	5,356	22,203	36,762	2,740	150	0
439	Other specialized construction activities	5,368,493	1,421,474	249,502	182,148	4,620	249,467
4	**Total**	**8,542,722**	**4,869,204**	**7,067,911**	**348,158**	**287,822**	**312,184**

Table 4.6 Cont..: Expenditure on Services by Large Contractors at Purchaser's Price (excluding VAT) by Activity

(000' TShs)

ISIC Rev 4	Industrial Activity	Environmental Protection Fees	Other services for Waste	Research Development	Payments for Works Subcontracted	Rental Premises	Machinery Equipment Repair
410	Construction of buildings	2,650	757,645	2,451,835	28,515,766	2,456,130	11,269,677
421	Construction of roads and railways	1,000	0	21,796	91,917	127,164	312,793
422	Construction of utility projects	0	0	0	0	1,800	0
429	Construction of other civil engineering projects	3,725	8,956	217,425	3,538,794	1,633,952	3,079,188
431	Demolition and site preparation	0	0	0	0	0	0
432	Electrical, plumbing and other construction installation activities	3,600	60,000	49,617	1,015,112	2,099,978	5,999,403
433	Building completion and finishing	0	0	1,550	12,326	25,734	5,301
439	Other specialized construction activities	845,140	0	66,041	2,729,566	1,357,809	1,434,597
	Total	**856,115**	**826,601**	**2,808,264**	**35,903,481**	**7,702,567**	**22,100,959**

Table 4.6 Cont..: Expenditure on Services by Large Contractors at Purchaser's Price (excluding VAT) by Activity

(000'TShs)

ISIC Rev 4	Construction Activity	Vehicles Minor Repair	Building Minor Repair	Other Minor Repair	Accounting legal auditing	Advertising promotion	Sponsorship sport Activities
410	Construction of buildings	2,579,521	551,437	707,440	664,187	171,841	167,489
421	Construction of roads and railways	248,149	22,318	1,540	56,295	16,696	1,631
422	Construction of utility projects	0	0	0	0	0	0
429	Construction of other civil engineering projects	1,470,428	3,850,945	188,609	285,220	101,888	65,938
431	Demolition and site preparation	4,760	0	133,242	0	0	4,000
432	Electrical, plumbing and other construction installation activities	526,310	400,272	138,949	312,408	525,008	502,586
433	Building completion and finishing	20,494	6,600	0	8,910	14,482	4,480
439	Other specialized construction activities	1,705,472	420,847	352,539	2,952,050	217,779	44,863
4	**Total**	**6,555,134**	**5,252,419**	**1,522,319**	**4,279,070**	**1,047,694**	**790,987**

Table 4.6 Cont..: Expenditure on Services by Large Contractors at Purchaser's Price (excluding VAT) by Activity

(000' Tshs)

ISIC Rev 4	Construction Activity	Other Business Services	Other Services1	Other Services2	Total Expenditure
410	Construction of buildings	135,450	273,770	2,610,473	67,205,290
421	Construction of roads and railways	1,616	6,200	146,271	2,226,363
422	Construction of utility projects	0	0	0	1,935
429	Construction of other civil engineering projects	77,027	1,087,583	1,069,909	29,792,917
431	Demolition and site preparation	0	0	0	482,381
432	Electrical, plumbing and other construction installation activities	43,668	119,447	74,631	19,200,339
433	Building completion and finishing	0	4,659	0	317,058
439	Other specialized construction activities	75,658	5,939,444	2,822,542	35,791,946
	Total	**333,419**	**7,431,103**	**6,723,826**	**155,018,229**

With regard to construction of buildings, expenditure on warehousing, storage and handling was Tshs. 837,385 thousand (0.54 percent) and Tshs. 516,252 thousand (0.33 percent) for construction of other civil engineering projects. For electrical, plumbing and other installation activity, Tshs. 321,823 thousand, (0.21 percent) was spent on warehousing, storage and handling, whereas Tshs.200,776 thousand (0.13 percent) was spent on the same service by other specialized construction activities.

Construction of other civil engineering projects activity spent Tshs. 3,264,587 thousand for hiring transport out of a total of Tshs. 155,018,229 thousand, equivalent to 2.11 percent. This was the highest amount spent for the service. Construction of buildings which came second spent Tshs. 3,052,918 thousand, equivalent to 1.97 percent; followed by electrical, plumbing and other installations activity with Tshs. 1,650,511 thousand, equivalent to 1.06 percent for hiring transport. Costs of hiring transport for other specialized construction activities was Tshs. 1,575,305 thousand, equivalent to 1.02 percent of the total costs.

The expenditure on services at purchaser's price (excluding VAT) by other specialized construction activities was TShs. 2,517,683 thousand out of a total of TShs, 155,018,229 thousand, equivalent to 1.62 percent. Construction of buildings incurred Tshs.1,408,376 thousand, equivalent to 0.91 percent on security service whereas electrical, plumbing and other installations activity spent Tshs. 769,023 thousand, equivalent to 0.50 percent for security services. In the case of construction of roads and railways, Tshs. 76,784 thousand, equivalent to 0.05 percent of the total was spent on security services.

The expenditure on consultancy and management services at purchaser's price (excluding VAT) by the activities of other specialized construction was Tshs.5,368,493 thousand out of a total of Tshs.155,018,229 thousand, equivalent to 3.46 percent while for electrical, plumbing and other construction installation activities it was Tshs. 1,659,227 thousand equivalent to 1.07 percent on the same service. Construction of buildings activity spent Tshs. 801,955 thousand, equivalent to 0.52 percent on consultancy management services whereas construction of other civil engineering projects incurred Tshs. 609,463 thousand, equivalent to 0.39 percent on similar services.
The expenses on air tickets excluding VAT by civil engineering projects were TShs. 1,455,499 thousand out of a total of Tshs. 155,018,229 thousand, equivalent to 0.93 percent while it was Tshs. 1,450,054 thousand, equivalent to 0.94 percent for construction of buildings, Tshs.1, 421,474 thousand, equivalent to 0.92 percent for other specialized construction activities, and Tshs. 469,155 thousand equivalent to 0.30 percent of the total for electrical, plumbing and other construction installation activities.

The expenditure on rental machinery equipment services excluding VAT by activity was Tshs. 3,847,557 thousand out of a total of Tshs.155,018,229 thousand, equivalent to 2.48 percent for construction of other civil engineering projects, Tshs. 2,477,587 thousand, equivalent to 1.60 percent for construction of buildings, Tshs 355,144 thousand, equivalent to 0.30 percent for electrical, plumbing and other construction installation activities, and Tshs. 249,502 thousand, equivalent to 0.16 percent of the total for other specialized construction activities.

Furthermore, the expenditure on solid waste services was Tshs. 182,148 thousand out of a total of Tshs. 155,018,229, equivalent to 0.12 percent for other specialized construction activities, Tshs. 78,219 thousand, equivalent to 0.05 percent, for construction of other civil engineering projects activity and Tshs. 65,602 thousand, equivalent to 0.04 percent of the total for construction of buildings.

Expenditure on liquid waste services at purchaser's price (excluding VAT) for demolition and site preparation was Tshs. 260,000 thousand out of a total of Tshs. 155,018,229 thousand, equivalent to 0.17 percent. Liquid waste service expenditure for other activities was as follows: for construction of buildings, it was Tshs. 10,510 thousand, equivalent to 0.007 percent; and Tshs. 5,736 thousand, equivalent to 0.004 percent of the total for construction of other civil engineering projects. For hazardous waste service; other specialized construction services spent Tshs. 249,467 thousand out of a total of Tshs. 155,018,229 thousand, equivalent to 0.16 percent for hazardous waste.

Demolition and site preparation incurred Tshs. 36,240 thousand equivalent to 0.02 percent for hazardous waste services while for electrical, plumbing and other construction installation activities, Tshs. 17,760 thousand, equivalent to 0.01 percent of the total was spent for such services. Expenditure on vehicles minor repair was incurred as follow; out of a total of Tshs. 155,018,229 thousand, TShs. 2,579,521 thousand, equivalent to 1.7 percent was for construction of buildings while other specialized construction activities spent Tshs, 1,705,472 thousand, equivalent to 1.10 percent. Construction of other civil engineering projects spent Tshs. 1,470,428 thousand, equivalent to 0.95 percent for the services while Tshs. 526,310 thousand, equivalent to 0.34 percent was for electrical, plumbing, and other construction installation activities. Construction of roads and railways spent Tshs. 248,149 thousand, equivalent to 0.16 percent of total expenditure on vehicles minor repair.

Out of total expenditure on services, construction of other civil engineering projects spent Tshs. 3,850,945 thousand, equivalent to 2.48 percent for building minor repair while construction of buildings activity spent Tshs. 551,437 thousand, equivalent to 0.36 percent for the same services. Other specialized construction activities incurred Tshs. 420,847 thousand, equivalent to 0.27 percent as expenditure on building minor repair whereas electrical, plumbing, and other construction installation activities spent Tshs. 400,272 thousand, equivalent to 0.26 percent of total expenditure on building minor repair. For other minor repair, construction of buildings spent Tshs. 707,440 thousands, equivalent to 0.43 percent for the service while other specialized construction activities spent Tshs.352,539 thousand, equivalent to 0.23 percent on the same services. Moreover, construction of other civil engineering projects spent Tshs. 188,609 thousand, equivalent to 0.12 percent on other minor repair services, whereas for electrical, plumbing and other construction installation activities, Tshs.138,949 thousand, equivalent to 0.09 percent was spent other minor repair services. Demolition and site preparations activity incurred Tshs. 133,242 thousand, equivalent to 0.08 percent on other minor repair services.

Out of total expenditure of Tshs. 155,018,229 thousand, other specialized construction activities spent Tshs.2,952,050 thousand, equivalent to 1.90 percent on accounting legal auditing. Likewise, construction of buildings activity incurred Tshs. 664,187 thousand, equivalent to 0.43 percent for accounting legal auditing. Electrical, plumbing and other construction installation activities spent Tshs. 312,408 thousand, equivalent to 0.20 percent on accounting legal auditing. Furthermore, construction of other civil engineering projects, and construction of roads and railways incurred

Tshs. 285,220 thousand, equivalent to 0.18 percent, and Tshs. 56,295 thousand, equivalent to 0.04 percent of the total service expenditure, respectively on accounting, legal and auditing activities. Electrical, plumbing and other installation activities incurred Tshs. 525,008 thousand, equivalent to 0.34 percent of total construction industry service expenditures on advertising promotion. Other specialized construction activities and construction of buildings activity spent Tshs.217,779 thousand, equivalent to 0.14 percent and Tshs. 171,841 thousand, equivalent to 0.11 percent of total service expenditure, respectively on advertising promotion. Construction of other civil engineering projects incurred Tshs. 101,888 thousand, equivalent to 0.07 percent as expenditure on advertising promotion. Furthermore, electrical, plumbing and other construction installations activities and construction of buildings activity incurred Tshs.502,586 thousand, equivalent to 0.32 percent and Tshs. 167,489 thousand, equivalent to 0.11 percent of a total service expenditure, respectively on sponsorship sport activities. Construction of other civil engineering projects incurred Tshs. 65,938 thousand, equivalent to 0.04 percent on sponsorship sport activities. Other specialized construction activities spent Tshs. 44,863 thousand, equivalent to 0.03 percent of total service expenditures on sponsorship sport activities.

Other business services expenditure at purchaser's price (excluding VAT) was Tshs.135,450 thousand, out of total expenditure of Tshs.155,018,229 thousand, equivalent to 0.09 percent for construction of buildings and Tshs.77,027 thousand, equivalent to 0.05 percent for construction of other civil engineering projects. Other specialized construction activities incurred Tshs.75,658 thousand, equivalent to 0.05 percent of total service expenditure as other business services expenditure. Likewise, electrical, plumbing and other construction installation activities spent Tshs. 43,668 thousand, equivalent to 0.03 percent of total service expenditure on other business services expenditure.

Other specialized construction activities expenditure on other business services was Tshs. 5,939,444 thousand, equivalent to 3.83 percent of total service expenditure. Other business services expenditures for construction of other civil engineering projects and construction of buildings were Tshs. 1,087,583 thousand, equivalent to 0.70 percent and Tshs.273,770 thousand, equivalent to 0.18 percent of total service expenditure, respectively. Electrical, plumbing and other construction installation activities incurred Tshs.119,447 thousand, equivalent to 0.08 percent of the total for other business services. Furthermore, other specialized construction activities spent Tshs.2, 822,542 thousand, equivalent to 1.8 percent of total construction industry service expenditure on other services. Construction of buildings incurred Tshs. 2,610,473 thousand, equivalent to 1.68 percent on other services.

Construction of other civil engineering projects and construction of roads and railways incurred Tshs. 1,069,909 thousand, equivalent to 0.69 percent, and Tshs. 146,271 thousand, equivalent to 0.09 percent, respectively on other services, while electrical, plumbing and other construction installations spent Tshs. 74,631 thousand, equivalent to 0.05 percent of the total expenditure on other services.

Construction of buildings activity's total expenditure on services was Tshs. 67,205,290 thousand, equivalent to 43.4 percent of total construction industry service expenditures. Other specialized construction activities service expenditure accounted for Tshs. 35,791,946 thousand, equivalent to 23.1 percent, while construction of other civil engineering projects activity service expenditure was Tshs. 29,792,917 thousand, equivalent to 19.2 percent of construction industry service expenditures. Total service expenditure on electrical, plumbing and other construction installation activities was Tshs.19,200,339 thousand, equivalent to 12.4 percent, while construction of roads and railways activity expenditure on services was Tshs. 2,226,363 thousand, equivalent to 1.4 percent. Furthermore, demolition and site preparation activity service expenditure was Tshs. 482,381 thousand, equivalent to 0.3 percent, while total services expenditure for building completion and finishing's activity was Tshs. 317,058 thousand, equivalent to 0.2 percent of the grand total (Table 4.6).

4.5 Construction Costs

Construction cost is the total expenses incurred during the process of construction Production cost in almost all sectors increased drastically during the year 2010 in Tanzania; increased costs of inputs including that of human resources, electricity and fuels contributed to this situation. Average construction material prices rose very highly in Tanzania during the year 2010. Increase in construction activities that created a huge demand in sand, metal and earth fill material led to unscrupulous and over exploitation of resources, causing serious environmental damage. The state in turn had to impose stricter conditions for extraction of these materials, which led to still higher prices.

4.5.1 Construction Costs for Large Contractors

The contractors in Tanzania have been categorized into different classes based on number of machineries owned such as graders, financial capacity, number of experts such as engineers, surveyors etc. The contractors in class I to class IV are regarded as large contractors.

Table 4.7 and Figure 4.5 report construction costs for the large contractors for the year 2010. The total construction cost incurred by class I contactors was Tshs 392,383,253 thousand which is equivalent to 66 percent of total construction cost of large contractors. Class III contractors were second in terms of construction costs with Tshs 76,505,439 thousand (13 percent). The total construction costs of class 4 contractors was TShs 72,335,800 thousand (12 percent) whereas the total construction costs of class II contractors was Tshs 52,818,003 thousand, which is equivalent to 9 percent of total construction cost of large contractors. Among all the activities the largest construction cost was that of construction of buildings at TShs 268,422,715 thousand or 45 percent of total construction cost of all construction activities.

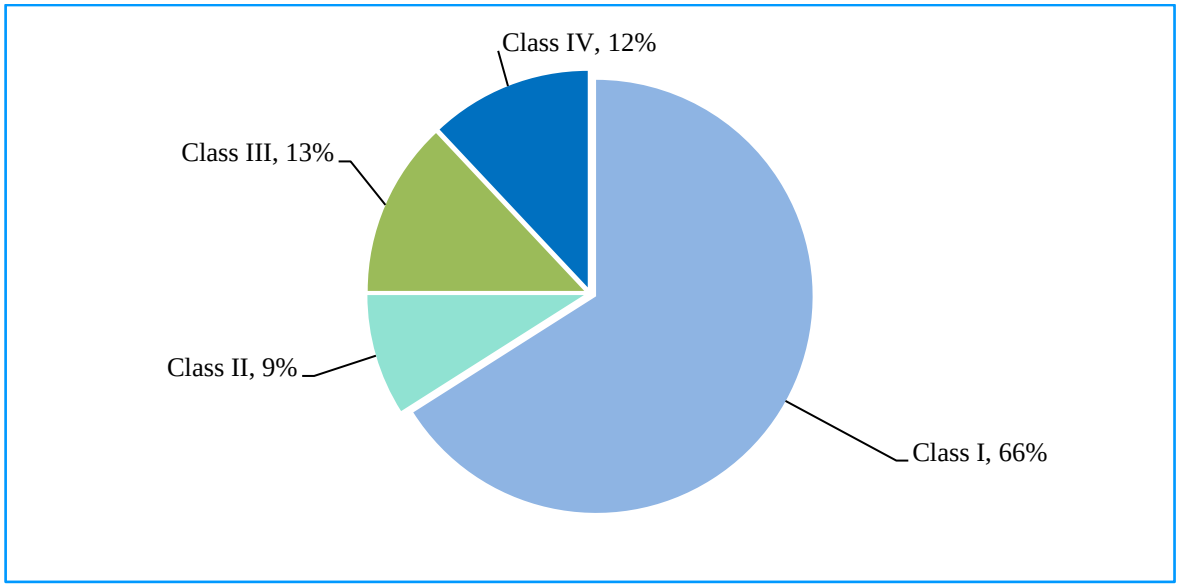
Figure 4.5 shows that class I contractors incurred higher construction cost in 2010 than other classes of contractors. This is because all the factors which determine the classes of contractors such as number of machineries owned, financial capacity, number of experts such as engineers and surveyors favor that class.

Table 4.7: Total Production Costs/Intermediate Consumption for Large Contractors by Activity and Class I to IV, 2010

(000 'TShs)

ISIC Rev 4	Construction Activity	Class I	Class II	Class III	Class IV	Total
410	Construction of buildings	193,769,031	20,318,536	21,912,571	32,422,577	**268,422,715**
421	Construction of roads and railways	2,308,551	2,336,987	2,656,383	2,796,764	**10,098,685**
422	Construction of utility projects	2,255	0	0	0	**2,255**
429	Construction of other civil engineering projects	87,803,230	3,759,835	23,899,393	24,856,906	**140,319,364**
431	Demolition and site preparation	0	0	0	618,915	**618,915**
432	Electrical, plumbing and other construction installation activities	45,565,142	8,804,735	5,981,380	5,459,216	**65,810,473**
433	Building completion and finishing	659,007	1,876,581	3,168,711	215,738	**5,920,037**
439	Other specialized construction activities	62,276,037	15,721,329	18,887,001	5,965,684	**102,850,051**
4	**Total**	**392,383,253**	**52,818,003**	**76,505,439**	**72,335,800**	**594,042,495**

Figure 4.5: **Percentage of Total Production Costs/Intermediate Consumption for Class I to IV, 2010**



4.5.2 Construction Costs for Small Contractors

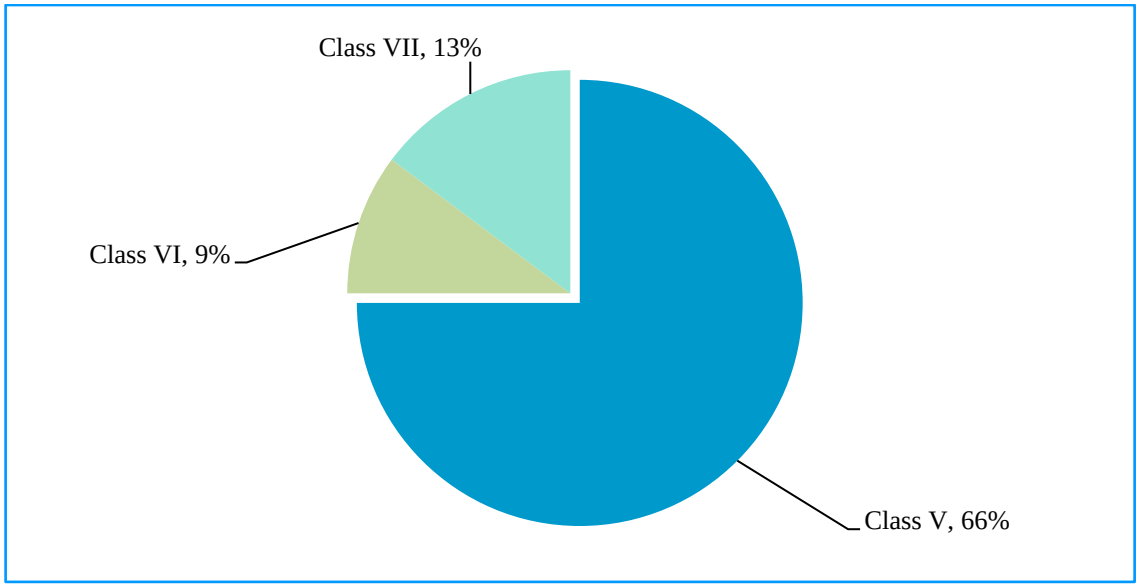
Small contractors in Tanzania are categorized into classes V, VI and VII, based on number of machineries owned, financial capacity, number of experts such as engineers, surveyors etc. Table 4.8 and Figure 4.6 show that total construction costs of class VII contractors were Tshs 159,875,779 thousand (39 percent of total construction costs of small contractors). Similarly, total construction costs of class V contactors were Tshs 156,278,041 thousand (38 percent). The total construction costs of class VI were Tshs 98,775,322 thousand (24 percent). Among all activities of contractors the largest total construction cost was for construction of buildings with Tshs 221,453,933 thousand (53 percent of total construction costs).

Table 4.8: Total Production Costs/Intermediate Consumption for Small Contractors by Activity and Class V to VII, 2010

(000'TShs)

ISIC Rev 4	Construction Activity	Class V	Class VI	Class VII	Total
410	Construction of buildings	94,668,751	35,678,031	91,107,151	**221,453,933**
421	Construction of roads and railways	4,841,184	20,842,304	4,650,244	**30,333,732**
422	Construction of utility projects	0	1,598	0	**1,598**
429	Construction of other civil engineering projects	39,347,291	27,592,984	36,360,990	**103,301,265**
431	Demolition and site preparation	0	0	193,628	**193,628**
432	Electrical, plumbing and other construction installation activities	12,821,869	7,614,608	15,669,435	**36,105,912**
433	Building completion and finishing	377,227	245,521	5,501,652	**6,124,400**
439	Other specialized construction activities	4,221,719	6,800,276	6,392,679	**17,414,674**
4	**Total**	**156,278,041**	**98,775,322**	**159,875,779**	**414,929,142.47**

Figure 4.6: Percentage of Total Production Costs/Intermediate Consumption by Class V to VII, 2010



CHAPTER FIVE

OTHER DISBURSEMENTS

5 Introduction

This chapter examines other disbursements that were made by large contractors in Tanzania during the year 2010. Construction industry comprises of organizations and persons such as companies, firms and individuals working as consultants, main contractors and sub-contractors, materials and components, producers, plant and equipment suppliers, builders and merchants. The government is involved in the industry as purchaser (client), financier, regulator and operator. Other disbursements refer to the amount paid for goods and services that might be currently tax deductible (as opposed to capital expenditures). The chapter is divided into six main sections which are trade license; taxes which include tenant tax, road tax, value added tax, income/corporate tax and other taxes; interest, dividend payments and current transfer to abroad; depreciation; purchase of shares and loss of foreign exchange payment.

5.1 General Approval Permits and Licenses.

To set up business in Tanzania, general approvals, permits and licenses are required. However, for investors who pass through the Tanzania Investment Centre (TIC), facilitation of these requirements are normally processed by the Centre. Principal forms of business organization are sole proprietorship, partnership, joint venture, incorporated company and registered branch of overseas companies. All companies must be registered in Dar es Salaam or in the regional headquarters by the Registrar of companies

The application process varies depending on the entity being registered. Several forms are required to be filled and submitted to the Registrar. These include application, list of directors, details of nominal shares, particulars of directors or managers, notice of situation of office etc.

Once a business has been registered with the Registrar of Companies, it is required to register with the nearest Tanzania Revenue Authority (TRA) office. Once registration formalities have been completed, a file number is established. Information on taxation matters for all types of business enterprises. Once a file number has been established, the business is expected to complete Provisional Tax Return form. The provisional tax return must be submitted within three months after the beginning of the starting accounting date; the provisional tax is payable on quarterly basis. There are currently several types of transaction taxes in Tanzania, which can primarily be segmented into three categories: sales tax; stamp duty, and excise duty.

In addition to general business licence, construction companies are obligated to register with the Contractors Registration Board. The Contractors Registration Board (CRB) was established by the Act of Parliament No.17 of 1997 as amended in 2008. The Board is a regulatory body charged with the responsibilities for registration, regulation and development of contractors. In the pursuit of its objectives, the corporate functions of CRB include registration of local and foreign contractors working in the construction industry. Local contracting firms are those whose majority shares are owned by citizens of the United Republic of Tanzania. Firms not meeting these criteria will be registered as a foreign one.

This section explains the disbursements made on business license by large contractors in Tanzania Mainland during the year 2010. Table 5.1 shows the cost of trade licence for large contractors by construction activity.

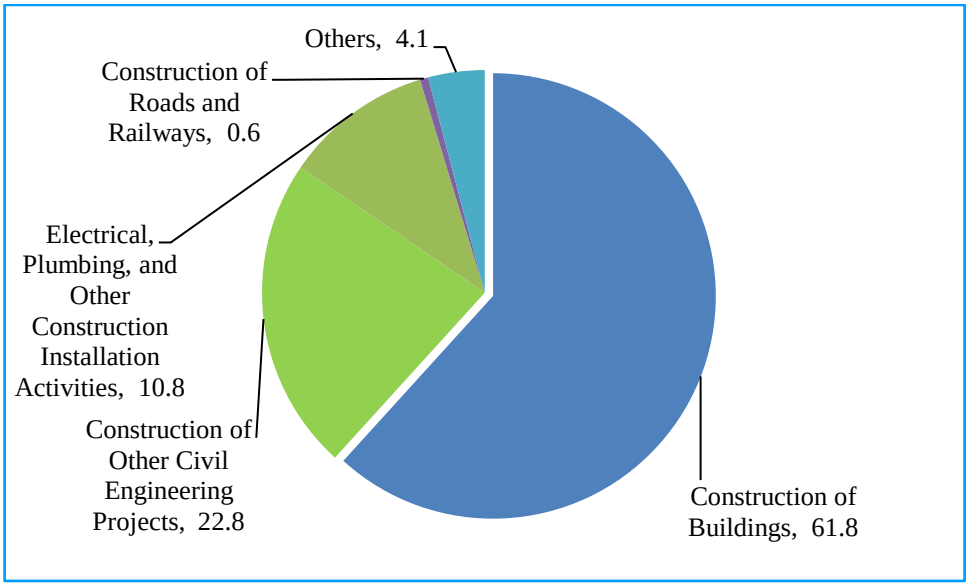
The results show that the highest cost of trade licence was on the construction of buildings with TShs. 354,406 thousand (61.8 percent) followed by construction of other civil engineering projects with TShs. 130,665 thousand (22.8 percent); construction of electrical, plumbing and other construction installation activities with TShs 62,007 thousand (10.8 percent); other specialized construction activities with TShs 22,284 thousand (3.9 percent); construction of roads and railways with TShs 3,464 thousand (0.6 percent) and building completion and finishing activities with only TShs 932 thousand (0.2 percent) (Table 5.1 and Figure 5.1).

Table 5.1: Cost of Trade Licence for Large Contractors by Construction Activity

(000' TShs.)

ISIC Rev 4	Construction Activity	Value	Percentage
410	Construction of buildings	354,406	61.8
421	Construction of roads and railways	3,464	0.6
422	Construction of utility projects	0	0.0
429	Construction of other civil engineering projects	130,665	22.8
431	Demolition and site preparation	0	0.0
432	Electrical, plumbing and other construction installation activities	62,007	10.8
433	Building completion and finishing	932	0.2
439	Other specialized construction activities	22,284	3.9
4	**Total**	**573,758**	**100.0**

Figure 5.1: To**tal Cost of Trade License in Percentages by Construction Activity**



5.2 Taxation

As in many industry producing jurisdictions, incomes earned in Tanzania from the construction sector activities have historically been subject to complex taxation regime. This taxation regime has been stipulated under the investment, industry and trade policies and acts. The ushering in many economic, financial and fiscal reforms had necessitated amendments in taxation laws to produce a construction taxation regime, distinct and different from the main tax regime applicable to other sectors. The Finance Act 1997, the Financial Laws (miscellaneous

amendments) Act 1997 and other Government Notices and Orders provided the instruments for enforcing a distinct regime applicable to the construction sector.

The new tax structure was aligned with the government's attempts to entice local and foreign investors in the construction sector, and bring in capital, technology and expertise that the sector was missing. The Investment Act of 1998 provided more incentives to foreign investors than its 1979 predecessor.

Construction industry is one of the industries which need heavy capital investment in terms of plant and machinery. This equipment requires substantial amounts of financial resources to acquire them and thus pose a big challenge to small contractors. The industry also faces a technology challenge that will enable it meet the international standards in order to effectively participate in the perfect competitive global market, (Mmanda, 2008).. Considering these challenges, the taxation regime in Tanzania introduces tax concessions through exemptions, capital allowances as replacement costs as well as tax reliefs as a way of encouraging growth of the sector which has been growing steadily during the past ten years contributing 5% to the GDP

Table 5.2 shows the total tax by activity in percentage. Table 5.2 suggests that VAT has been one of the most important effective taxation instrument in collecting government revenues in the construction sector. Table 5.2 shows that in 2010 the total Value Added Tax was 62.6 percent of the total tax in construction sector for large contractors. The government through its investment and taxation policies has been reviewing its policies by providing a number of tax incentives with a view to creating a conducive environment for encouraging local and foreign investors to invest in the country.

Table 5.2: Percentage of Total Taxes for Large Contractors by Construction Activity

ISIC Rev 4	Construction Activity	VAT as % age of Total Tax	Income & Corporate Tax as %age of Total Tax	Total Tax as %age of Total Disbursement	Total Tax as % age of Gross Output	Total Tax as %age of Production Cost
410	Construction of buildings	63.7	28.6	30.0	1.6	3.9
421	Construction of roads and railways	77.5	20.0	41.9	1.3	7.7
422	Construction of utility projects	0.0	0.0	0.0	0.0	0.0
429	Construction of other civil engineering projects	45.8	42.6	29.0	2.4	4.3
431	Demolition and site preparation	72.9	27.1	95.1	11.5	11.6
432	Electrical, plumbing and other construction installation activities	80.9	12.8	57.5	5.0	9.9
433	Building completion and finishing	73.4	8.7	45.4	5.6	6.0
439	Other specialized construction activities	56.0	40.1	33.3	3.3	6.7
4	**Construction**	**62.6**	**30.1**	**34.5**	**2.4**	**5.2**

These incentives are given through Income Tax, Value Added Tax (VAT) and the Customs and Excise. Whoever meets the requirements stipulated in the respective laws will get the incentives. However, beneficiaries of tax exemptions in the construction industry under the present tax regime are the clients or owners of the construction projects. Contractors are not beneficiaries of the incentive unless they are investors in the priority sector.

Table 5.2 suggests that income and corporate tax as the second most important source of government revenue in the construction sector. Income and corporate tax was 30.1 percent of the total tax. The Income Tax Act provides for income based tax incentives which are in the form of Wear and Tear allowances on the assets employed in construction. These allowances are grouped or pooled in eight classes of assets which eligible persons including contractors can enjoy. Under the present investment policy, tax incentives have been targeted to particular sectors of the economy which include the infrastructure, e.g. road construction, bridges, railways etc. Holders of certificate of incentive including those in the construction industry are entitled to the incentives in this sector.

Table 5.2 suggests that the percentage of total tax to total disbursement was 34.5 percent in construction sector for large contractors. The table also reveal that total tax as a percentage of gross output was 2.4 percent, while as a percentage of total production cost was 5.2 percent. These statistics can convey different messages suggesting that taxes are important cost component, but at the same

time its overall contribution to total tax revenue has not been significant compared to its GDP contribution and real rate of economic growth. There are concerns over impact and risks associated with the current taxation regime, (Mmanda, 2008).

Taxation of the construction industry poses a number of challenges which affect the tax collection process.

(i) There is lack of transparency in the process of sub-contracting work.

- Some agreements may not readily be available to verify the subcontracted work.
- Sub-contracted work may be awarded to individuals or firms who are not registered with TRA.
- There are no records of employees employed by sub-contracted firms leading to loss of PAYE.

(ii) Sometimes the final retention money which is 2.5% can easily escape taxation especially when it is paid to small firms.

(iii) In Tanzania most of the construction is undertaken informally by firms or individuals who are not registered with TRA. The industry is dominated by SMEs (79%) construction firms.

(iv) Statistics show that 21% of the constructions of firms are in Class I and II who command 80% of the monetary value of the works. These are mostly foreign firms which are awarded government contracts.

(v) Use of cheap construction materials not only reduce the quality of the properties constructed but also VAT on the materials used and property tax from the buildings

(v) TRA relies on the Bills of Quantity prepared by Quantity Surveyors. The correctness of the bills of quantity have a tax implication.

(vi) Abuse of the tax exemptions by dishonest contractors and clients.

(vii) Fraudulent recovery of input VAT

The study recommends that the Construction Registration Board (CRB) and the related stakeholders in the construction industry to assist in ensuring that all informal contractors including individuals are registered with the relevant Boards thus facilitating TRA with data, (Mmanda, 2008).

5.3 Interest and Dividend Payments and Current Transfers Abroad

Interest is a fee paid by a borrower of assets to the owner as a form of compensation for the use of the assets. It is most commonly the price paid for the use of borrowed money, or money earned by deposited funds. Interest is compensation to the lender, for a) risk of principal loss, called credit risk; and b) foregoing other investments that could have been made with the loaned asset. These foregone investments are known as the opportunity cost. Instead of the lender using the assets directly, they are advanced to the borrower. The borrower then enjoys the benefit of using the assets ahead of the effort required to pay for them, while the lender enjoys the benefit of the fee paid by the borrower for the privilege. In economics, interest is considered the price of credit.

Dividends are payments made by a corporation to its shareholder members. It is the portion of corporate profits paid out to stockholders. When a corporation earns a profit or surplus, that money can be put to two uses: it can either be re-invested in the business (called retained earnings), or it can be distributed to shareholders. There are two ways to distribute cash to shareholders: share repurchases or dividends. Many corporations retain a portion of their earnings and pay the remainder as a dividend.

A dividend is allocated as a fixed amount per share. Therefore, a shareholder receives a dividend in proportion to their shareholding. For the joint stock company, paying dividends is not an expense; rather, it is the division of after tax profits among shareholders. Retained earnings (profits that have not been distributed as dividends) are shown in the shareholder equity section in the company's balance sheet - the same as its issued share capital. Public companies usually pay dividends on a fixed schedule, but may declare a dividend at any time, sometimes called a special dividend to distinguish it from the fixed schedule dividends.

Interest payments and dividends are proxy measures of profit performances. This section explains total interests and dividends received in large contractors as percentages of other disbursement by activity during the year 2010. Interest in this case is divided into two main categories which are interest received from residents and interest received from non-residents. Dividend is also, divided into two categories which are dividends received from residents and

dividend received from non-residents. Table 5.3 shows total interests and dividends for large contractors in Tanzania Mainland.

Table 5.3: Total Interest and Dividends Received by Large Contractors

(000'TShs)

ISIC. Rev 4	Construction Activity	Total Interest and Dividends (000' Tshs)	Total Disbursements (000' Tshs)	Total Interest and Dividends (%age)
410	Construction of buildings	5,204,995	34,472,634	15.1
421	Construction of roads and railways	295,586	1,865,108	15.8
422	Construction of utility projects	0	0	0
429	Construction of other civil engineering projects	1,902,447	20,790,130	9.2
431	Demolition and site preparation	0	75,793	0
432	Electrical, plumbing and other construction installation activities	840,022	11,357,083	7.4
433	Building completion and finishing	0	788,697	0
439	Other specialized construction activities	117,342	20,726,018	0.6
4	**Total**	**8,360,392**	**90,075,463**	**9.3**

Table 5.3 suggests that construction sector is a profit making business activity in Tanzania. The results show that out of the total disbursement of TShs 90,075,463 thousand, interest and dividends accounted for TShs 8,360,392 thousand (9.3 percent). However, within activities, the activity with the highest percentage of interest and dividends was in the construction of roads and railways (15.8 percent) followed by construction of buildings (15.1 percent); construction of other civil engineering projects (9.2 percent); electrical, plumbing and other construction installation activities (7.4 percent) and other specialized construction activities (0.6 percent). There were no interest and dividends paid in the construction of utility projects; demolition and site preparation; building completion and finishing. This may suggests that these sectors have problems and failed to make definitive positive profits. Problems that arise unexpectedly can wreak havoc with a construction company's profit margin. Such problems include high construction costs, damaged materials due to a natural disaster, theft of supplies and unexpected foundation problems that require drastic corrections. Most of these problems are difficult or impossible to predict.

5.4 Depreciation

Depreciation is the reduction of the value of an asset as a result of wear and tear, age or obsolescence of fixed assets during the reference year. In this case it is the depreciation charged for the year that was considered and not the cumulative depreciation. This section explains the depreciation as percentage of total disbursement made by large contractors during the year 2010.

Table 5.4 shows depreciation of construction activities at ISIC Rev 4, (UN, 2008). The activities are displayed in the eight major sub-activities of the large contractors with the corresponding percentage composition of their depreciation charges.

Table 5.4: Depreciation and Total Disbursement for Large Contractors by Activity

(000 'TShs)

ISIC. Rev 4	Construction Activity	Depreciation	Total Disbursement	Depreciation to Disbursement (%age)
410	Construction of buildings	10,827,664	34,472,634	31.4
421	Construction of roads and railways	605,961	1,865,108	32.5
422	Construction of utility projects	0	0	0.0
429	Construction of other civil engineering projects	8,754,198	20,790,130	42.1
431	Demolition and site preparation	0	75,793	0.0
432	Electrical, plumbing and other construction installation activities	2,584,090	11,357,083	22.8
433	Building completion and finishing	266,316	788,697	33.8
439	Other specialized construction activities	4,968,359	20,726,018	24.0
4	**Total**	**28,006,588**	**90,075,463**	**31.1**

Table 5.4 shows that construction of other civil engineering projects had the highest depreciation with 42.1 percent of the total disbursement followed by building completion and finishing activity with 33.8 percent. Construction of roads and railways with 32.5 percent, construction of buildings with 31.4 percent, other specialized construction activities with 24.0 percent, electrical, plumbing and other construction installation activities with 22.8 percent. The construction of utility projects and demolition and site preparation activities had no provision for depreciation.

The structure of depreciation by industrial activity in large contractors implies that there were more expenses that reduced the value of fixed assets as a result of wear and tear, age or obsolescence during the reference year. The pattern of depreciation in large contractors reflects that they are also incurring

large expenses caused by depreciation especially on construction equipments and machinery. The high percentages of depreciation of more than 20 percent in each of the six activities were due to the high cost of most of the contractors' equipments and machineries.

There might be several implications to this pattern/structure of depreciation to the total economy. The highest percentage of depreciation was 42.1 percent in the construction of other civil engineering projects implies that depreciation in most large contractors is still a serious problem while the lowest (0 percent) depreciation in the construction of utility projects and demolition and site preparation might imply that most of the large contractors were not fully engaged in these two activities. Alongside new developments, large contractors should be encouraged to upgrade and adopt modern equipments and machineries, so as to avoid depreciation expenses.

The structure of depreciation on large contractors in Tanzania has various policy implications. In 1992 for example, the government of Tanzania established Plant and Equipment Hire Company Limited (PEHCOL) to manage, on commercial basis, all road construction equipments, the company was under the Ministry of Works. This was the government's long term plan and sustainable strategy for providing the road sector with reliable equipment. PEHCOL performance was very poor due to old age of most equipment. A study conducted in 1994 indicated that 64 percent of the equipment that were retained by PEHCOL by then had their life expired; and only 12 percent of the retained equipment had a reliability index of at least 5 percent. The situation has since worsened. Therefore, it is recommended to provide incentives to franchise dealers to provide equipment and spare parts to contractors on credit or hire purchase arrangements and also to provide equipment and spare parts to large contractors on credit or hire purchase arrangements.

5.5 Purchase of Shares

Purchase of shares is acquiring a type of security that gives the holder the option to purchase a predetermined number of shares at a predetermined price. This section examines the structure of purchase of shares by construction activity of large contractors in Tanzania Mainland during the year 2010. Table 5.5 shows the value of purchase and percentage of shares made by large contractors.

Table 5.5: Purchase of Shares by Large Contractors by Activity

(000 'Tshs)

ISIC.Rev 4	Construction Activity	Purchase of Shares	Total Disbursements	Purchase of Shares to Disbursements (%age)
410	Construction of buildings	70,857	34,472,634	0.2
421	Construction of roads and railways	10,600	1,865,108	0.6
422	Construction of utility projects	0	0	0.0
429	Construction of other civil engineering projects	136,203	20,790,130	0.7
431	Demolition and site preparation	0	75,793	0.0
432	Electrical, plumbing and other construction installation activities	166,761	11,357,083	1.5
433	Building completion and finishing	600	788,697	0.1
439	Other specialized construction activities	1,150,101	20,726,018	5.5
4	**Total**	**1,535,122**	**90,075,463**	**1.7**

The results show that the total value of shares acquired by large contractors was TShs.1,535,122 thousand (1.7 percent) of the total disbursement of TShs 90,075,463 thousand. Activity wise, other specialized construction activities had the highest purchase of shares of TShs 1,150,101 thousand (5.5 percent) followed by electrical, plumbing and other construction installation activities with TShs.166,761 thousand, (1.5 percent); construction of other civil engineering projects with TShs 136,203 thousand (0.7 percent); construction of roads and railways with TShs 10,600 thousand (0.6 percent); construction of buildings with TShs 70,857 thousand (0.2 percent) and building completion and finishing with TShs 600 thousand (0.1 percent). However, there were no purchases of shares made by large contractors on construction of utility projects and demolition and site preparation activities.

The purchase of shares pattern observed in other specialized construction activities and electrical, plumbing and other construction installation activities tended to be higher partly due

to improvements made in these sectors during the reference year. There might be several implications of this patterns/structure of purchase of shares of these sectors to the total economy. The highest percent of purchase of shares of 5.5 percent in other specialized construction activities implies that most of the large constructors in Tanzania disbursed more in this construction activity while the lowest percentage (0 percent) in the construction of utility projects and demolition and site preparation activities imply that most of the large contractors in Tanzania were undervaluing these two construction activities compared to other activities.

It is therefore, recommended that there should be shift of capital flows towards activities with low purchase of shares such as demolition and site preparation, construction of utility projects, building completion and finishing and construction of buildings. These industrial activities are more feasible and cheaper in developing countries if productivity is insured. Efforts have to be made to strengthen the capacity and capability of large contractors to respond to these activities.

5.6 Loss on Foreign Exchange

Loss on foreign exchange is the exchange difference in respect of an exchange item during the year of assessment determined by multiplying such exchange item by the difference among the ruling exchange rate on transaction date in respect of such exchange item during that year of assessment. This section examines the structure of loss of foreign exchange in large contractors by construction activities. Table 5.6 shows loss on foreign exchange by large contractors and construction activity during the year 2010.

The results show that other specialized construction activities constituted the highest percentage (16.8 percent) of loss on foreign exchange. Construction of buildings was the second accounted for 16.7 percent followed by building completion and finishing activity with 7.5 percent; electrical, plumbing and other construction installation activities with 4.9 percent; construction of other civil engineering projects with 0.8 percent and construction of roads and railways with 0.1 percent of the total activity loss on foreign exchange during the year 2010. The remaining two activities had no loss on foreign exchange.

Table 5.6: Loss on Foreign Exchange by Large Contractors by Activity,2010

(**000' Tshs)**

ISIC. Rev 4	Construction Activity	Loss on Foreign Exchange	Total Disbursements	Loss to Disbursements (%age)
410	Construction of buildings	5,724,718	34,472,634	16.7
421	Construction of roads and railways	1,844	1,865,108	0.1
422	Construction of utility projects	0	0	0
429	Construction of other civil engineering projects	166,046	20,790,130	0.8
431	Demolition and site preparation	0	75,793	0
432	Electrical, plumbing and other construction installation activities	551,813	11,357,083	4.9
433	Building completion and finishing	58,915	788,697	7.5
439	Other specialized construction activities	3,464,292	20,726,018	16.8
4	**Total**	**9,967,628**	**90,075,463**	**11.1**

The loss on foreign exchange pattern observed in construction of buildings and other specialized construction activities tended to be higher mainly due to the fact that most of the raw materials used in the construction works were imported from foreign countries. Therefore, certain measures such as more dependence on the locally produced raw materials than on the imported materials in construction industry need to be addressed by the government. This will certainly reduce the loss on foreign exchange.

Moreover, structural changes in the exchange over time can pose distinct issues for inflation, for example, such changes can mean that, for most of the time large contractors in Tanzania use large amounts of Tanzania Shillings to import small quantities of raw materials from foreign countries.

5.7 Other Disbursements by Activity

Table 5.7 and Figure 5.2 show total and percentage of other disbursements for large contractor by activity during the year 2010. The results reveal that total disbursements was TShs 90,075,463 thousand of which building construction accounted for TShs 34,472,634 thousand (38.3 percent); construction of roads and railways accounted for Tshs 1,865,108 thousand (2.1 percent) while there was no disbursement made on the construction of utility during the year 2010. Construction of other civil engineering project accounted for TShs 20,790,130 thousand (28.1 percent); demolition and site preparation accounted for TShs. 75,793 thousand (0.1

percent); electrical, plumbing and other construction installation activities amounted to TShs 11,357,083 thousand (12.6 percent); building completion and finishing accounted for TShs 788,697 thousand (0.9 percent) and other specialized construction activities amounted to Tshs 20,726,018 thousand (23.1 percent) of the total other disbursements made.

Table 5.7: Other Disbursements for Large Contractors by Activity

(000' TShs)

ISIC. Rev 4	Construction Activity	Trade License	Tenant Tax	Road Tax	Other	Value Added Tax	Interest Paid to Residents	Interest Paid to Non Residents	Dividend Paid To Non Residents
410	Construction of buildings	354,406	245,418	59,639	489,757	6,594,008	2,617,577	1,496,486	266,632
421	Construction of roads and railways	3,464	0	18,986	725	606,095	121,390	0	0
422	Construction of utility projects	0	0	0	0	0	0	0	0
429	Construction of other civil engineering projects	130,665	15,348	128,149	557,822	2,765,709	1,575,813	600	246,034
431	Demolition and site preparation	0	0	0	0	52,560	0	0	0
432	Electrical, plumbing and other construction installation activities	62,007	28,201	38,860	346,213	5,281,084	225,688	360	480,667
433	Building completion and finishing	932	7,940	6,003	50,000	262,792	0	0	0
439	Other specialized construction activities	22,284	33,233	64,068	177,600	3,860,481	85,302	0	16,250
4	**Total**	**573,758**	**330,140**	**315,705**	**1,622,117**	**19,422,729**	**4,625,770**	**1,497,446**	**1,009,583**

Table 5.7 Cont…: Other Disbursements for Large Contractors by Activity, 2010

(000' TShs)

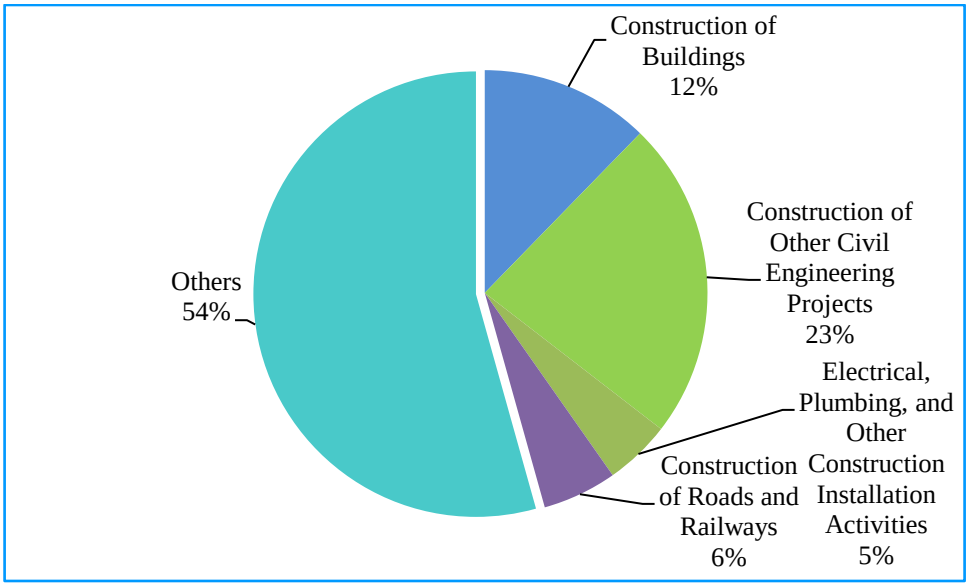
ISIC. Rev 4	Construction Activity	Dividend Paid to residents	General Insurance Premiums Paid	Income & Corporate Tax	Purchase of Shares	Environment Protection Fees	Loss Foreign Exchange
410	Construction of buildings	824,300	814,009	2,965,929	70,857	5,491	5,724,718
421	Construction of roads and railways	174,196	125,266	156,572	10,600	10	1,844
422	Construction of utility projects	0	0	0	0	0	0
429	Construction of other civil engineering projects	80,000	1,357,275	2,571,685	136,203	19,133	166,046
431	Demolition and site preparation	0	3,733	19,500	0	0	0
432	Electrical, plumbing and other construction installation activities	133,307	415,484	837,279	166,761	3,406	551,813
433	Building completion and finishing	0	24,225	31,233	600	0	58,915
439	Other specialized construction activities	15,790	422,109	2,764,413	1,150,101	54,757	3,464,292
4	**Total**	**1,227,593**	**3,162,101**	**9,346,611**	**1,535,122**	**82,797**	**9,967,628**

Table 5.7 Cont : Other Disbursements for Large Contractors by Activity, 2010

(000' Tshs)

ISIC. Rev 4	Construction Activity	Land Lease	Depreciation	Current Transfer To Abroad	Other Disbursements	Total Disbursements
410	Construction of buildings	224,528	10,827,664	715,137	176,078	**34,472,634**
421	Construction of roads and railways	11,600	605,961	14,396	14,003	**1,865,108**
422	Construction of utility projects	0	0	0	0	**0**
429	Construction of other civil engineering projects	548,186	8,754,198	1,275,798	461,466	**20,790,130**
431	Demolition and site preparation	0	0	0	0	**75,793**
432	Electrical, plumbing and other construction installation activities	18,961	2,584,090	129,630	53,272	**11,357,083**
433	Building completion and finishing	0	266,316	0	79,741	**788,697**
439	Other specialized construction activities	952,012	4,968,359	239,270	2,435,697	**20,726,018**
4	**Total**	**1,755,287**	**28,006,588**	**2,374,231**	**3,220,257**	**90,075,463**

Figure 5.2: Percentages of Total Disbursements for Large Contractors by Activity, 2010



5.8 Percentage of Total Disbursement to Gross Output and Construction Cost

Table 5.8 shows the percentage of total disbursements to gross output and construction cost of large contractors during the year 2010. The results show that construction of building accounted for 5.4 percent of gross output and 12.8 percent of construction cost; construction of roads and railways constituted 3.2 percent of gross output and 18.5 percent of the construction costs; construction of other civil engineering projects had 8.4 percent of gross output and 14.8 percent of construction cost demolition and site preparation accounted for 12.1 percent of gross output and 12.2 percent on production cost; electrical, plumbing and other construction installation activities had 8.7 percent of gross output and 17.3 percent of construction cost; building completion and finishing accounted for 12.3 percent of gross output and 13.3 percent of construction cost whereas other specialized construction activities accounted for 10.0 percent of gross output and 20.2 percent of construction cost**.**

Table 5.8: Percentage of Total Disbursements to Gross Output and Construction Cost for Large Contractors by Activity

(000 'Tshs)

ISIC. Rev 4	Construction Activity	Gross Output	Construction Costs	Total Disbursements	Total Disbursements as Percent of Gross Output	Total Disbursements as Percent of Production Cost
410	Construction of buildings	641,607,381	268,422,715	34,472,634	5.4	12.8
421	Construction of roads and railways	58,056,891	10,098,685	1,865,108	3.2	18.5
422	Construction of utility projects	4,172	2,255	0	0.0	0.0
429	Construction of other civil engineering projects	248,247,185	140,319,364	20,790,130	8.4	14.8
431	Demolition and site preparation	626,651	618,915	75793	12.1	12.2
432	Electrical, plumbing and other construction installation activities	130,919,088	65,810,473	11,357,083	8.7	17.3
433	Building completion and finishing	6,420,110	5,920,037	788,697	12.3	13.3
439	Other specialized construction activities	206,272,748	102,850,051	20,726,018	10.0	20.2
4	**Total**	**1,292,154,226**	**594,042,495**	**90,075,463**	**7.0**	**15.2**

CHAPTER SIX

RECEIPTS IN THE CONSTRUCTION SECTOR

6 Introduction

This chapter examines receipts from the construction sector for the year 2010. A receipt is a written acknowledgment that a specified article or sum of money has been received. A receipt records the purchase of goods or service obtained in an exchange. Receipts are all sums of money received as an exchange of goods, works and services rendered excluding value added tax (VAT). Value of construction works means market worth or estimated worth of services or work. Interests received from residents means amount of money or percentage or rate charged or received as interest on deposit made in banks and other financial institutions. Sale of wastes is an activity involving the selling of unwanted or undesired materials or substances in return for money or other commercial activities. Receipts from sub-contracted works are payments received for work that was assigned by another party.

Both large and small contractors are considered in this chapter. The chapter is divided into eight sections. Section 6.1 presents and discusses receipts from the construction sector excluding VAT by activity. Sections 6.2 and 6.3 present and analyze expenditure on fixed assets (additions) and disposal of fixed assets (sales of fixed assets) by activity respectively. Expenditure on fixed assets (depreciation) by activity is described and analyzed in section 6.4 while section 6.5 discusses the debt repayment, outstanding debt and employment of health /safety officer by activity. Value added in construction industry by activity is analyzed in section 6.6. Sections 6.7 and 6.8 present and analyze gross output by activity and class, and value added by activity and class respectively.

6.1 Receipts from Construction Industry Excluding VAT by Activity

Table 6.1 provides data on receipts for construction industry excluding VAT by activity. Project registration statistics indicate that large contractors had the highest value of receipts amounting to TShs 1,242,599,912 thousand, while small contractors' total receipts where TShs 904,166,090 thousand.

The total value of construction for large contractors was TShs 1,242,599,912 thousand of which, the value of construction was TShs 1,149,990,163 thousand (92.5 percent of the total receipts); value of subcontract was TShs 84,515,731 thousand (6.8 percent); and receipts for rental of equipment was TShs 8,094,018 thousand (0.65 percent).

Table 6.1(b) attempts to compute participation indicator of local construction companies in Tanzania Mainland during the year 2010. Table 6.1(b) use the ratio between small and large scale yield per firm in TShs thousand. Table 6.1(b) suggests that the participation of the local construction industry in available work opportunities is currently about 14.4% in terms of value. Enhanced participation in construction sector work opportunities is still a cry of every local supplier of goods and services. Low participation is a result of stiff competition from foreigners aggravated by poor capacity of the local players (be it contractors, consultants or material suppliers) and inadequate supportive environment. Inadequate capacity of local contractors and consultants is a result of factors that include lack of skills, inadequate capital, unfavorable donor conditions and application of inappropriate delivery practices.

Table 6.1(a): Receipts from Construction Work (excluding VAT) by Activity, 2010

(000' TShs)

ISIC. Rev 4	Construction by Activity	Large Contractors				Small Contractors				
		Value of Construction	Sub Construction Work	Rental of Equipment	Total	Receipts for Services Rendered	Rents received on the use of Establishment's Fixed Assets	Subsidies Received	Other Receipts	Total
410	Construction of buildings	620,863,262	11,050,920	3,618,958	**635,533,140**	442,642,940	3,269,799	549,699	4,106,620	**450,569,058**
421	Construction of roads and railways	39,571,395	15,609,671	198,272	**55,379,338**	72,958,490	1,204,999	0	204,681	**74,368,170**
422	Construction of utility projects	4,172	0	0	**4,172**	2,956	0	0	0	**2,956**
429	Construction of other civil engineering projects	226,630,973	7,862,308	2,243,308	**236,736,589**	241,524,988	2,225,123	1,103,440	10,356,327	**255,209,878**
431	Demolition and site preparation	476,995	149,656	0	**626,651**	357,754	0	0	0	**357,754**
432	Electrical, plumbing and other construction installation activities	92,069,284	36,009,418	487,165	**128,565,867**	70,045,390	807,758	442,728	698,596	**71,994,472**
433	Building completion and finishing	3,435,128	312,659	2,000	**3,749,787**	7,550,963	290,260	147,970	173,327	**8,162,520**
439	Other specialized construction activities	166,938,954	13,521,099	1,544,315	**182,004,368**	42,448,407	595,058	0	457,817	**43,501,282**
4	**Total**	**1,149,990,163**	**84,515,731**	**8,094,018**	**1,242,599,912**	**877,531,888**	**8,392,997**	**2,243,837**	**15,997,368**	**904,166,090**

Table 6.1 (b): Participation Indicators for the Construction Sector by Activity, 2010

ISIC.Rev 4	Construction by Activity	Large Contractors			Small Contractors			Participation Ratio
		Total Receipts	Number of Firms	Yield Per Firm	Total Receipts	Number of Firms	Yield Per Firm	
410	Construction of buildings	635,533,140	153	4,153,811.37	450,569,058	1,671	269,640.37	6.49
421	Construction of roads and railways	55,379,338	29	1,909,632.34	74,368,170	234	317,812.69	16.64
422	Construction of utility projects	4,172	1	4,172.00	2,956	3	985.33	23.62
429	Construction of other civil engineering projects	236,736,589	97	2,440,583.39	255,209,878	1,324	192,756.71	7.90
431	Demolition and site preparation	626,651	1	626,651.00	357,754	6	59,625.67	9.51
432	Electrical, plumbing and other construction installation activities	128,565,867	110	1,168,780.61	71,994,472	528	136,353.17	11.67
433	Building completion and finishing	3,749,787	5	749,957.40	8,162,520	28	291,518.57	38.87
439	Other specialized construction activities	182,004,368	81	2,246,967.51	43,501,282	316	137,662.28	6.13
4	**Total**	**1,242,599,912**	**477**	**2,605,031.26**	**904,166,090**	**4,110**	**219,991.75**	**8.44**
	Participation Rate in Value for the Small Construction Firms							**14.36**

In monetary terms, large contractors execute projects of higher value than small contractors. The main reasons being that large contractors are more equipped with plant, labour and materials and posses experienced and skilled personnel. They can also secure working capital more easily than small contractors. Total receipts (excluding VAT) of TShs 1,149,990,163 thousand were realized in construction activities by large contractors, and total receipts of TShs 904, 166,090 thousand were received by small contractors. The smaller amount could be attributed to low capacity and capability of small contractors and consultants due to weak resource base and inadequate experience; inadequate and erratic work opportunities, inappropriate contract packaging of works which favour foreign firms in donor funded projects; low public investments in infrastructure projects and over-dependence on donor funding; lack of supportive institutional mechanism in terms of financial credit facilities; equipment for hire and professional development and unfavourable donor conditionalities which tend to marginalize small construction enterprises.

During the reference year, value of construction of buildings for large contractors was TShs 620,863,262 thousand (54.0 percent). The value for construction of roads and railways was TShs 39,571,395 thousand (3.4 percent). For the construction of utilities, the value of construction was Tshs 4,172 thousand (0.0 percent). The value for construction of other civil engineering projects was TShs 226, 630,973 thousand (19.7 percent). Other specialized construction activities were valued at TShs 166, 938,954 thousand (14.5 percent). The value of construction for electrical, plumbing and installation activities was to TShs 92,069,284 thousand (8.0 percent). Building completion and finishing amounted to TShs 3,435,128 thousand (0.3 percent) while the demolition and site preparation had a value of TShs 476,995 thousand (0.0 percent).

For large contractors, the total amount of TShs 635,533,140 thousand was received for the construction of buildings comprising value of construction of buildings at TShs 620,863,262 thousand; value of sub-contract works valued at TShs 11,050,920 thousand; and value of rental of equipment worth TShs 3,618,958 thousand. Large contractors are able to engage sub-contractors while sub-contractors do not have that capacity. Small contractors were able to receive subsidies amounting to TShs 2,243,837 thousand; while large contractors did not have that privilege.

Figure 6.1 highlights the percentages of receipts (excluding VAT) from various categories of construction activities for large contractors. The figure shows receipts from the construction industry

by activity and category of receipts, the construction of buildings had a contribution of 49.8 percent of the total receipts; construction of roads and railways (8.2 percent of the total receipts); construction of other civil engineering projects (28.2 percent) and electrical, plumbing and other construction installation activities had a share of 7.9 percent of the total amount.

Figure 6.1: Percentage Distribution of Receipts From Construction (Excluding VAT) for Large Contractors by Activity

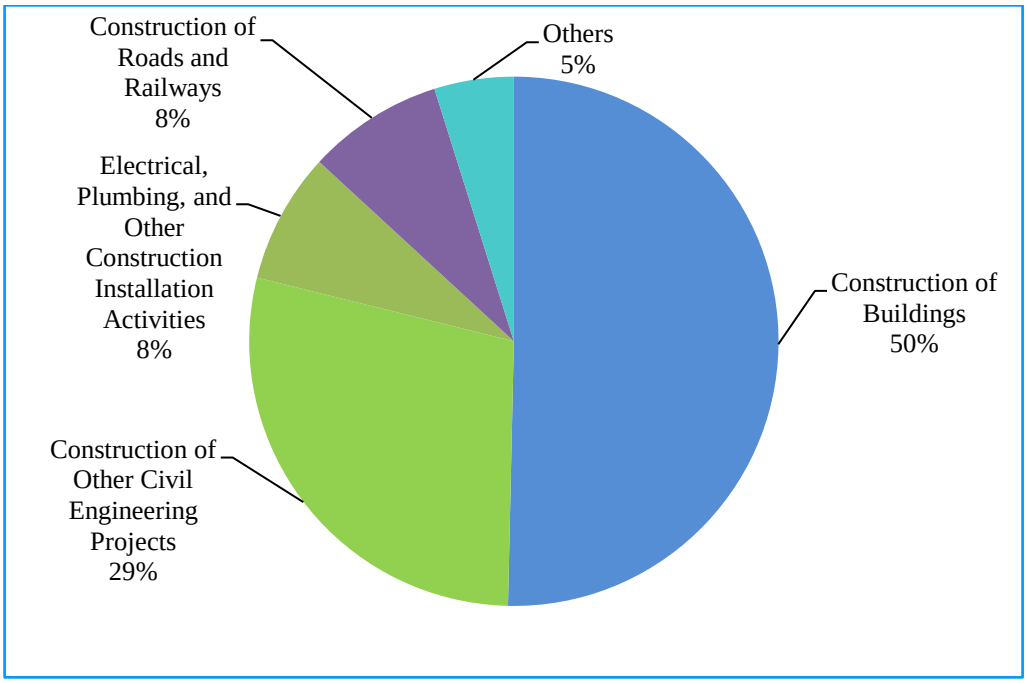


Table 6.2 shows other receipts such as interest, dividends, insurance, refund from social security, gain from foreign exchange, and sales of wastes. Interest is the amount received on deposit made in banks and other financial institutions. Dividends are receipts/monies earned from profit or surplus.

An insurance claim received is a legal action (insurance claim) to obtain money, property or enforcement of a right against another party.

For the year 2010, the total of other receipts was TShs 49, 5554,314 thousand out of which, TShs 21,873,278 thousand were from other receipts (44.1 percent); TShs 9,543,439 thousand were from sale of wastes (19.3 percent); TShs 6, 116,325 thousand were from interest received from residents (12.3 percent) and TShs 1, 332,954 thousand were from interest received from non residents (2.7 percent of the total receipts).

Interest received from residents for other specialized construction activities amounted to TShs 4,966,761 thousand (81.2 percent); interest received from residents for electrical, plumbing and other construction installation activities accounted for TShs 455,639 thousand (7.5 percent of the total amount received) whereas receipts for construction of buildings amounted to TShs 419,879 thousand equivalent to (6.9 percent of the total amount). Other receipts included interest received from non residents which amounted to a total of TShs 1,332,954 thousand (2.7 percent of the total other receipts) and dividend received from residents which amounted to TShs 395, 567 thousand (0.8 percent of the total other receipts).

Table 6.2: Other Receipts of Large Contractors by Activity

(000' Tshs)

ISIC Rev 4	Construction l Activity	Interest Received from Residents	Interest Received from Non Residents	Dividends Received from Residents	Dividends Received from Non Residents	Insurance Claims Received
410	Construction of buildings	419,879	45,601	14,046	75,000	12,624
421	Construction of roads and railways	2,440	0	0	0	6,799
422	Construction of utility projects	0	0	0	0	0
429	Construction of other civil engineering projects	271,606	0	0	0	168,454
431	Demolition and site preparation	0	0	0	0	0
432	Electrical, plumbing and other construction installation activities	455,639	0	13,200	0	152,000
433	Building completion and finishing	0	0	0	0	0
439	Other specialized construction activities	4,966,761	1,287,353	368,321	518,331	620,179
4	**Total**	**6,116,325**	**1,332,954**	**395,567**	**593,331**	**960,056**

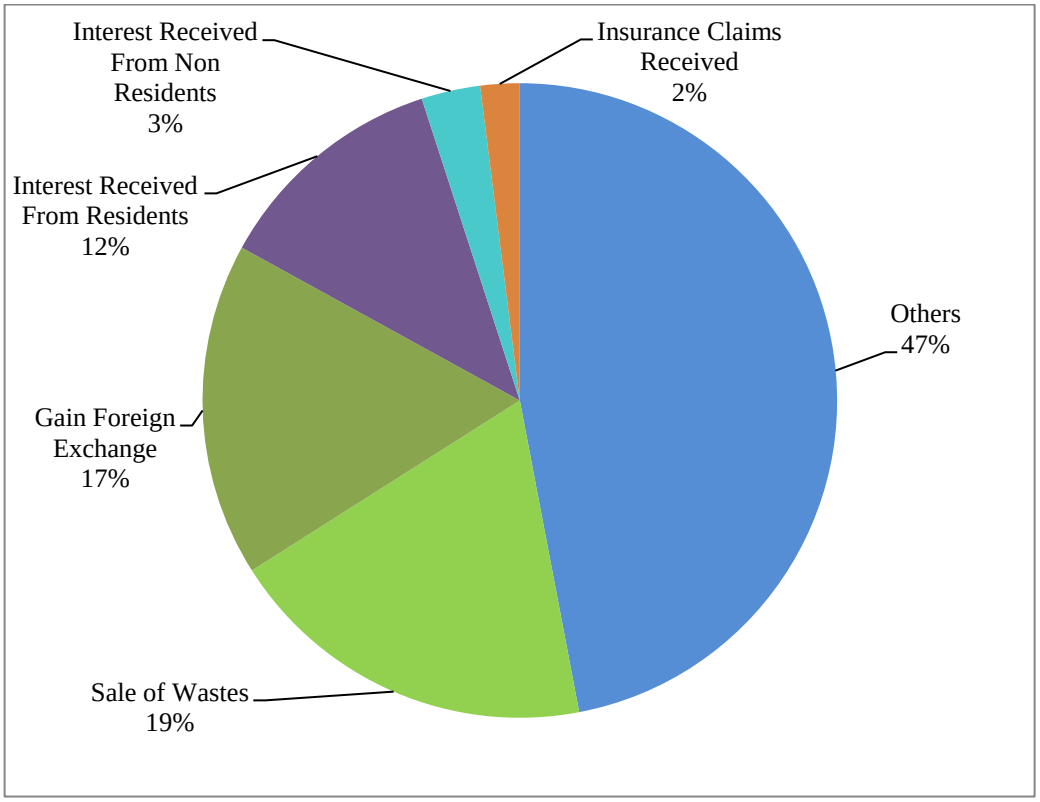
Table 6.3 Cont.: Other Receipts of Large Contractors by Activity

(000' Tshs)

ISIC Rev 4	Construction l Activity	Refund from Social Security Schemes	Gain Foreign Exchange	Current Transfer from Abroad	Sale Of Wastes	Other Receipts	Total Value	Total %
410	Construction of buildings	0	2,087,189	122,782	1,130,173	2,166,947	**6,074,241**	**12.3**
421	Construction of roads and railways	54,935	2,539,377	0	2,155	71,847	**2,677,553**	**5.4**
422	Construction of utility projects	0	0	0	0	0	**0**	**0**
429	Construction of other civil engineering projects	2,506	431,199	1,035	1,279,586	9,356,210	**11,510,596**	**23.2**
431	Demolition and site preparation	0	0	0	0	0	**0**	**0**
432	Electrical, plumbing and other construction installation activities	81,198	256,428	0	826,013	568,743	**2,353,221**	**4.8**
433	Building completion and finishing	0	12,073	0	200	2,658,050	**2,670,323**	**5.4**
439	Other specialized construction activities	41,513	3,108,483	646	6,305,312	7,051,481	**24,268,380**	**49.0**
4	**Total**	**180,152**	**8,434,749**	**124,463**	**9,543,439**	**21,873,278**	**49,554,314**	**100**

Figure 6.2 shows percentage distribution of other receipts for large contractors. The results show that interest received from residents was 12 percent; interest received from non residents was 3 percent. Other receipts include, dividends received from non residents with 1 percent while that of residents was 1 percent of the total industrial activities. Large contractors got 17 percent of other receipts from foreign exchange gains. This indicates that the majority of large contractors were foreign while the majority of small contractors were local. The performance of small contractors was affected by inadequate equipment; inadequate use of skilled and experienced personnel; inadequate financial support; lack of proper organization structures; poor quality of works hence, requiring much closer supervision; low efficiency leading to slow progress of the works and dishonesty by some local contractors.

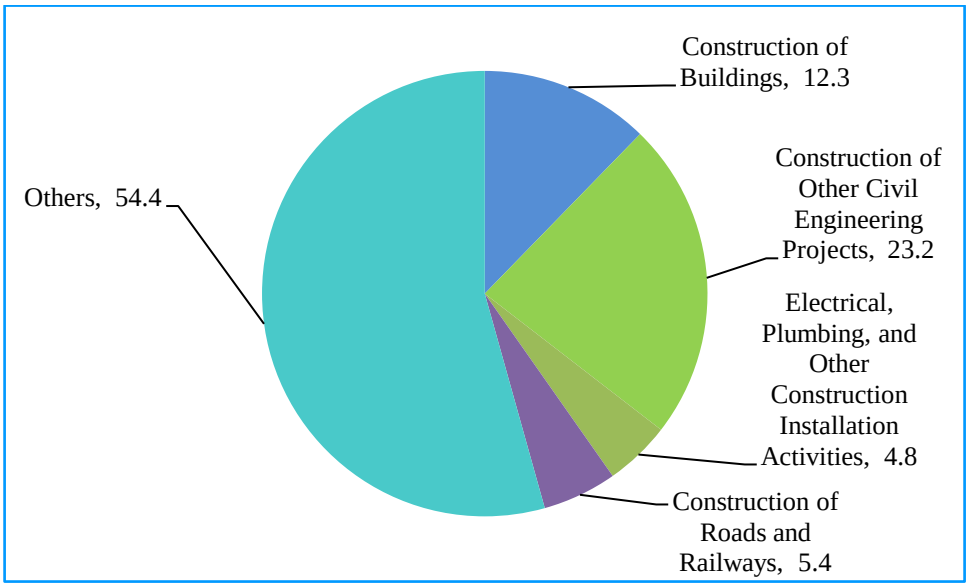
Figure 6.2: Percentage Distribution of Other Receipts for Large Contractors by Activity



Small contractors get demoralized by the issue of delayed payments by some clients especially government funded projects which affects much of their cash flows. Small contractors have poor knowledge of tendering procedures, poor financial skills including poor project management skills

which results in getting few projects and of smaller value. Figure 6.3 indicates that other specialized construction activities contributed 49 percent of the other receipts for small contractors while construction of other civil engineering projects accounted for 23.2 percent followed by construction of buildings with 12.3 percent and construction of roads and railways which accounted for 5.4 percent of the total other receipts.

Figure 6.3: Percentage Distribution of Other Receipts for Small Contractors by Activity



6.2 Expenditure on Fixed Assets (Additions) by Industrial Activity

Fixed assets are items of property (land, buildings, motor vehicles, furniture, office equipment, computers, fixtures and fittings, plant and machinery) used by business entity in the generation and expansion of revenues. Building and structure include any independent structure comprising one or more rooms or other spaces covered by a roof enclosed by external walls which extend from foundation to roof structures, include such components as lifts, stairways, heating, lighting and external communications systems. Land acquisition for the purpose of this survey has been restricted to acquiring land for business purposes only. Land improvement means the process of making land more usable to humans and production activities. Machinery and transport equipment means items such as power equipment, cranes, loaders, trucks and conveyors. Production equipments are tools used in making products (goods, works and services). Transport equipments are equipments used to move materials from one location to another (trucks, cranes, and conveyors).

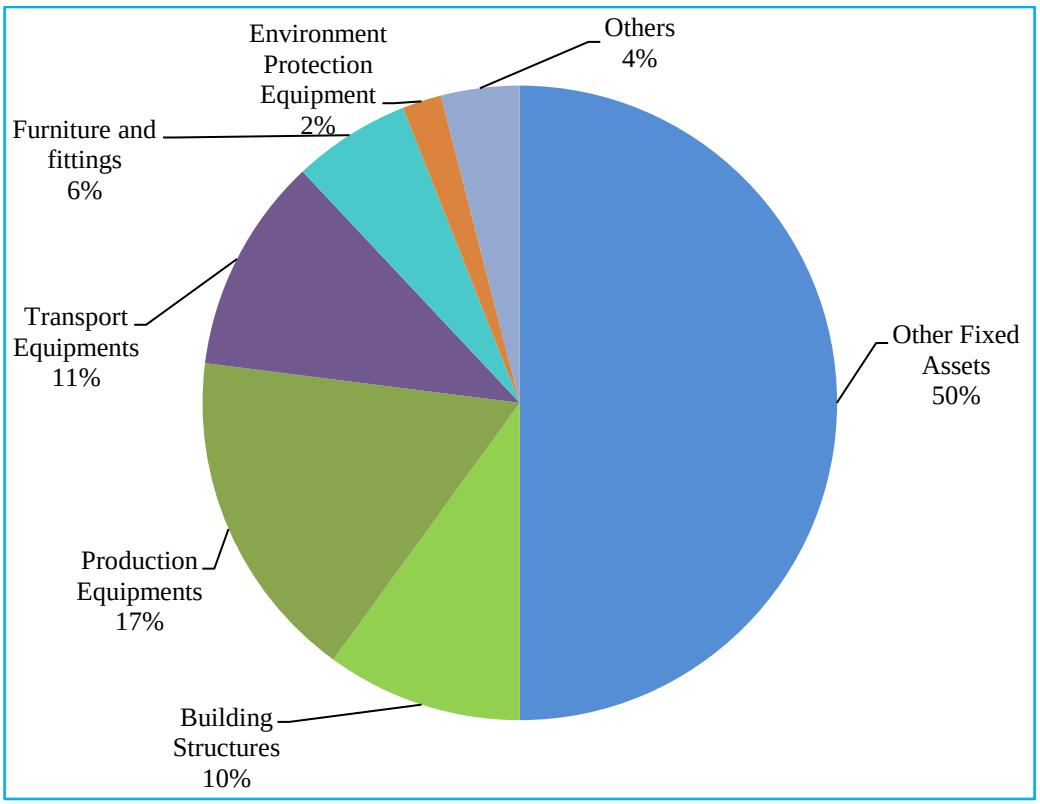
Table 6.3 shows that expenditure on fixed assets (additions) by activity for large contractors was TShs 58,872,110 thousand out of which, construction of buildings accounted for TShs 5,722,578 thousand (9.7 percent of the total expenditure); land acquisition amounted to TShs 110,096 thousand (0.2 percent); land improvement with TShs 1,181,347 thousand (1.7 percent); production equipment with TShs 10,137,714 thousand (17.2 percent); transport equipment with TShs 6,370,846 thousand (18.8 percent); environmental protection equipment with TShs1,280,390 thousand (2.2 percent); other machinery and transport with TShs 1,015,402 thousand (1.7 percent); furniture and fittings with TShs 3,395,949 thousand (5.8 percent); and other fixed assets with TShs 29,657,788 thousand or 50.4 percent of the total expenditure on fixed assets, (Figure 6.4).

Table 6.4: Expenditure on Fixed Assets (Additions) for Large Contractors by Activity

(000' Tshs)

ISIC Rev 4	Construction Activity	Building and Structure	Land Acquisition	Land Improvement	Production Equipment	Transport Equipment	Environment Protection Equipment	Other Machin. & Transport Equipment	Furniture and Fittings	Other fixed Assets	Total
410	Construction of buildings	598,373	70,040	448,302	5,251,769	3,341,759	390,853	448,199	1,174,087	11,968,022	**23,691,404**
421	Construction of roads and railways	78,900	0	0	45,000	156	0	2,500	936,422	989,584	**2,052,562**
422	Construction of utility projects	0	0	0	0	0	0	0	0	0	**0**
429	Construction of other civil engineering projects	3,539,307	40,056	433,771	3,922,192	2,637,931	161,169	455,050	805,614	12,207,821	**24,202,911**
431	Demolition and site preparation	0	0	0	0	0	102,900	11,000	2,460	215,360	**331,720**
432	Electrical, plumbing and other construction installation activities	631,521	0	0	784,629	306,497	112,540	62,235	90,984	2,860,942	**4,849,348**
433	Building completion and finishing	792,866	0	0	50,433	0	0	0	0	0	**843,299**
439	Other specialized construction activities	81,611	0	299,274	83,691	84,503	512,928	36,418	386,382	1,416,059	**2,900,866**
4	**Total**	**5,722,578**	**110,096**	**1,181,347**	**10,137,714**	**6,370,846**	**1,280,390**	**1,015,402**	**3,395,949**	**29,657,788**	**58,872,110**

Figure 6.4: Percentage Distribution of Expenditure on Fixed Assets (Additions) for Large Contractors by Activity



6.3 Disposal of Fixed Assets (Sales of Fixed Assets) by Large Contractors by Activity

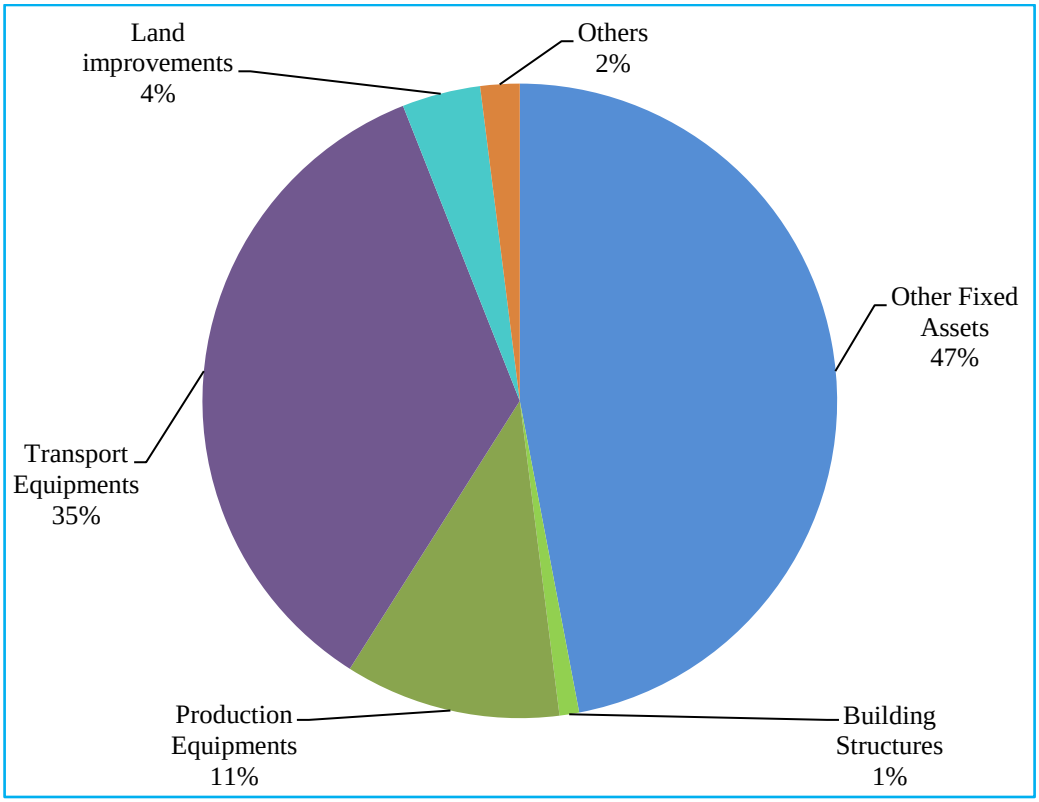
Table 6.4 and Figure 6.5 show the disposal of fixed assets (sales of fixed assets) by large contractors. The Table shows that the total disposal of fixed assets was TShs 1,709,740 thousand out of which, buildings and structure accounted for TShs 20,000 thousand (1.2 percent); land improvement was worth TShs 71,240 thousand (4.2 percent of the total expenditure); the value of production equipment was TShs 183,731 thousand (10.8 percent of the total expenditure); environmental protection equipment was TShs 14,289 thousand (0.8 percent); transport equipment were worth Tshs 606,000 thousand (35.4 percent of the total expenditure); other machinery and transport equipment accounted for TShs 18,669 thousand (1.1 percent of the total expenditure); and other fixed assets which accounted for TShs 795,811 thousand (46.6 percent of the total expenditure).

Table 6.5: Disposal or Sales of Fixed Assets by Large Contractors by Activity

(000' Tshs)

ISIC Rev 4	Industrial Activity	Building and Structure	Land Acquisition	Land Improvement	Productn. Equipmnt	Environment Protection Equipment	Transp. Equipmt	Other Machin., Transport equipment	Furniture and Fittings	Other fixed assets	Total
410	Construction of buildings	0	0	71,240	98,800	14,289	57,736	0	0	177,323	**419,388**
421	Construction of roads and railways	20,000	0	0	34,600	0	0	15,527	0	34,600	**104,727**
422	Construction of utility projects	0	0	0	0	0	0	0	0	0	**0**
429	Construction of other civil engineering projects	0	0	0	2,000	0	88,683	0	0	90,683	**181,366**
431	Demolition and site preparation	0	0	0	0	0	0	0	0	0	**0**
432	Electrical, plumbing and other construction installation activities	0	0	0	9,000	0	212,695	0	0	221,695	**443,390**
433	Building completion and finishing	0	0	0	0	0	0	0	0	0	**0**
439	Other specialized construction activities	0	0	0	39,331	0	246,886	3,142	0	271,510	**560,869**
4	**Total**	**20,000**	**0**	**71,240**	**183,731**	**14,289**	**606,000**	**18,669**	**0**	**795,811**	**1,709,740**

Figure 6.5: Percentage Distribution of Disposal of Fixed Assets (Sales of Fixed Assets) by Type of Asset



Land acquisition in Tanzania is normally the role of the client and therefore the contractor has not paid for it. Likewise, furniture and fittings have zero value, because these are clients' expenditure and the costs for these items in many contracts is normally incurred by the client and not the contractors

6.4 Expenditure on Fixed Assets (Depreciation) for Large Contractors by Industrial Activity

Table 6.5 and Figures 6.6(a) and 6.6(b) show the structure of expenditure on fixed assets (depreciation) by activity and percentage format for large contractors during 2010.

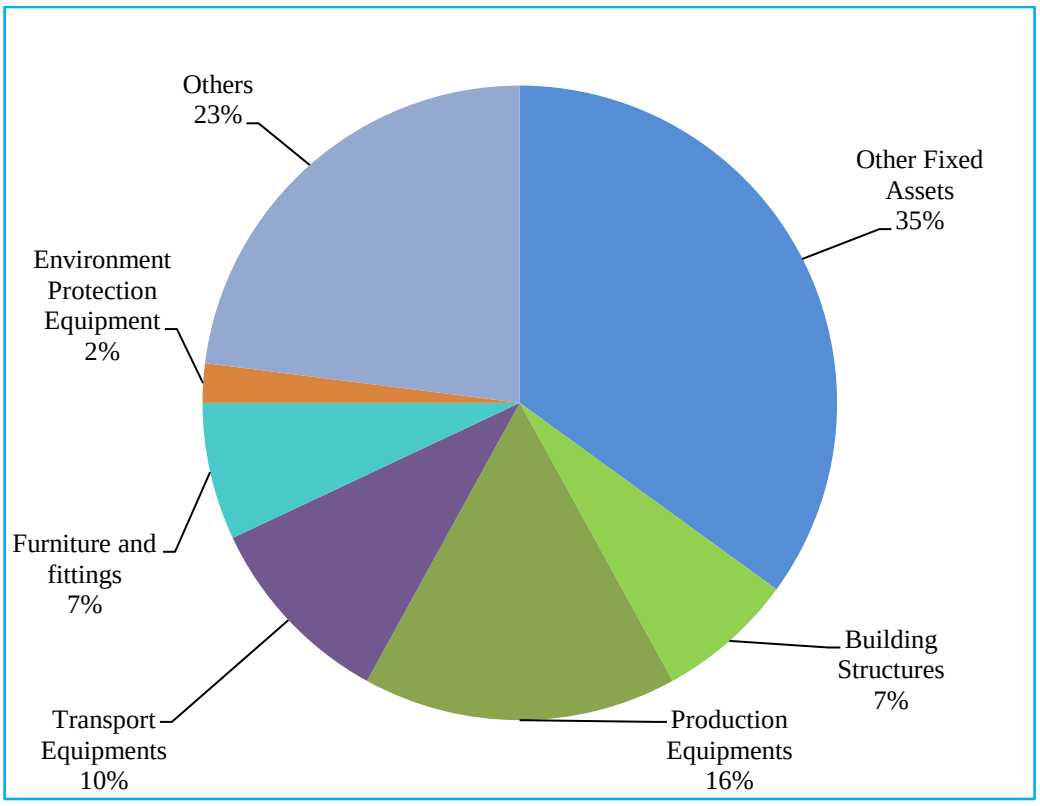
The results show that total expenditure on fixed assets (depreciation) for large contractors was TShs 71,878,919 thousand out of which, buildings and structures had a depreciation of TShs 4,780,705 thousand (6.7 percent); land acquisition had TShs 357, 960 thousand (0.5 percent of the total depreciation).

Table 6.6: Expenditure on Fixed Assets (Depreciation) for Large Contractors by Activity

(000' Tshs)

ISIC Rev 4	Industrial Activity	Building and Structure	Land Acquisition	Land Improvement	Production Equipment	Environment Protection Equipment	Transport Equipment	Other Machinery & Transport	Furniture and Fittings	Other fixed assets	Total
410	Construction of buildings	1,438,306	22,240	419,383	4,289,394	224,876	2,590,781	9,794,308	604,729	8,877,108	**28,261,125**
421	Construction of roads and railways	117,264	0	73,815	1,812,835	18,759	458,547	3,244,202	1,287,676	1,499,751	**8,512,849**
422	Construction of utility projects	0	0	0	0	0	0	0	0	0	**0**
429	Construction of other civil engineering projects	1,325,370	95,720	1,117,806	3,519,452	503,778	1,514,106	190,052	1,061,976	5,656,508	**14,984,768**
431	Demolition and site preparation	0	0	0	0	215,326	0	51,116	886	267,328	**534,656**
432	Electrical, plumbing and other construction installation activities	1,452,458	240,000	237,280	1,285,154	163,966	1,771,277	599,235	636,796	4,749,357	**11,135,523**
433	Building completion and finishing	542	0	0	214,384	988	19,050	319	25,749	48,774	**309,806**
439	Other specialized construction activities	446,765	0	639,014	647,248	163,780	773,829	72,371	1,687,090	3,710,095	**8,140,192**
4	**Total**	**4,780,705**	**357,960**	**2,487,298**	**11,768,467**	**1,291,473**	**7,127,590**	**13,951,603**	**5,304,902**	**24,808,921**	**71,878,919**

Figure 6.6 (a): Percentage Distribution of Expenditure on Fixed Assets (Depreciation) by Type of Asset



Land improvement accounted for TShs 2,487,298 thousand (3.5 percent of the total expenditure); production equipment constituted TShs 11,768,467 thousand (16.4 percent); environment protection equipment accounted for TShs 1,291,473 thousand (1.8 percent); transport equipment accounted for TShs 7,127,590 thousand (9.9 percent); other machinery and transport equipment constituted TShs 13,951,603 thousand (19.4 percent); furniture and fittings accounted for TShs 5,304,902 thousand (7.4 percent); and other fixed assets accounted for TShs 24,808,921 thousand (34.5 percent of the total depreciation expenditure).

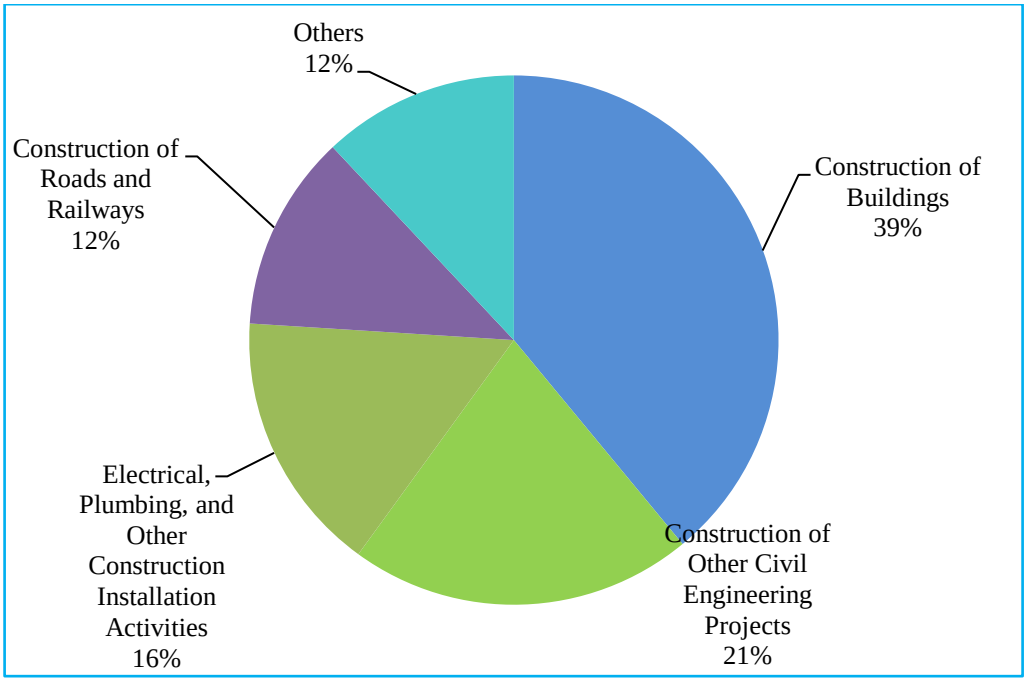
Since large contractors, consultants and clients have easy access to loans/credit facilities, they are able to compete for work opportunities and have the ability to purchase production equipments.

Figure 6.6(a) shows that depreciation of other fixed assets was the highest with 35 percent of the total expenditure followed by other machinery and transport equipment with 19 percent; production equipment with 16 percent; transport equipment with 10 percent; buildings and structures with 7

percent; furniture and fittings with 7 percent; land improvement with 3 percent; environmental protection equipment with 2 percent and land acquisition with 1 percent.

Figure 6.6(b) shows that construction of buildings had the highest depreciation (39 percent of the total depreciation expenditure on fixed assets), followed by construction of other civil engineering projects with 21 percent; electrical plumbing and other construction installation activities with 16 percent; construction of roads and railways with 12 percent; other specialized construction activities with 11 percent; and the demolition and site preparation with only 1 percent. However, both construction of utility projects and building completion and finishing activities had no depreciation charges.

Figure 6.6 (b): Percentage Distribution of Expenditure on Fixed Assets (Depreciation) for Large Contractors by Activity



6.5 Debt Repayment and Outstanding Debts

Debt repayment is to pay back the owed amount, usually referencing assets owned and an outstanding debt at the end of reporting period is the amount still owed at the end of the reporting period. Table 6.6 and Figure 6.7 show in detail the debt repayment and outstanding debt. The total amount for debt repayment at the end of 2010 was TShs 547,187,758 thousand while the outstanding debt at the end of the reference year was TShs 2,056,836,591 thousand. Activitywise, construction of buildings made the highest debt repayment of TShs 377,543,475

thousand (69 percent of the total debt repayment) followed by construction of other civil engineering projects with TShs 108,490,599 thousand (20 percent of the total debt payment); other specialized construction activities with TShs 55,804,180 thousand (10 percent of the total debt).

With regard to outstanding debt, the construction of other civil engineering projects had the highest outstanding debt of TShs 1,224,781,227 thousand (59.6 percent of the total outstanding debt) followed by construction of buildings with TShs 216,251,196 thousand (10.5 percent of the total outstanding debt).

6.6 Employment of Health /Safety Officers by Activity

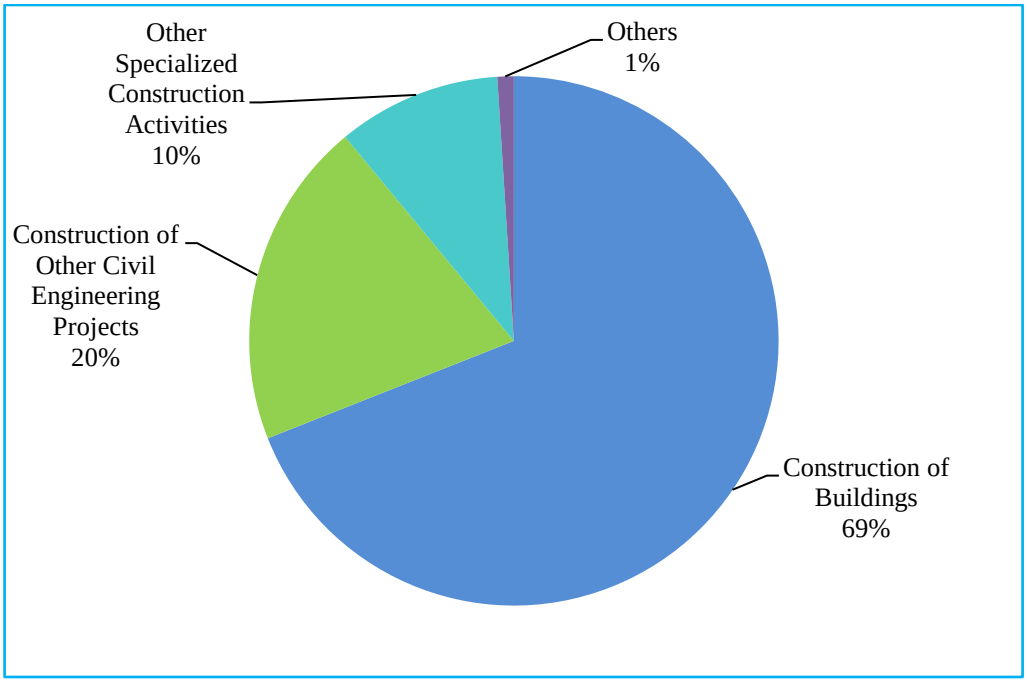
Health and safety provide an opportunity for the contractor to put in place ways of working and a culture that can positively and effectively change the behaviour and competence of their work people, (Mwombeki, 2005). Precautions have to be taken against health hazards for the workmen on site. Safety measures have to be adopted and safety gears should be provided to each worker.

Table 6.7 : Debt Repayment and Outstanding Debt in Large Contractors by Activity, 2010

(000Tshs)

ISIC Rev 4	Construction Activity	Debt Repayment	Outstanding Debt
410	Construction of buildings	377,543,475	216,251,196
421	Construction of roads and railways	365,260	69,158,898
422	Construction of utility projects	0	0
429	Construction of other civil engineering projects	108,490,599	1,224,781,227
431	Demolition and site preparation	0	0
432	Electrical, plumbing and other construction installation activities	4,982,843	340,678,433
433	Building completion and finishing	1,401	896,172
439	Other specialized construction activities	55,804,180	205,070,665
4	**Total**	**547,187,758**	**2,056,836,591**

Figure 6.7 : Percentage Distribution of Debt Repayment for Large Contractors by Activity



On the part of employment of health /safety officers, a total of 87 enterprises employed health/safety officers on full-time basis, and a total of 57 enterprises engaged health officers on part- time basis while a total 333 enterprises did not engage any health and safety officer in their firms. Out of the 87 enterprises which employed health and safety officers on full time basis, 27 enterprises (31.0 percent) were in the construction of buildings and the same number of enterprises were in the construction of other civil engineering projects followed by electrical, plumbing and other construction installation activities (14 enterprises 16.1 percent); other specialized construction activities with (13 enterprises 14.9 percent), construction of roads and railways (5 enteprises, 5.7 percent) and construction of utility projects (1 enterprise, 1.1 percent)

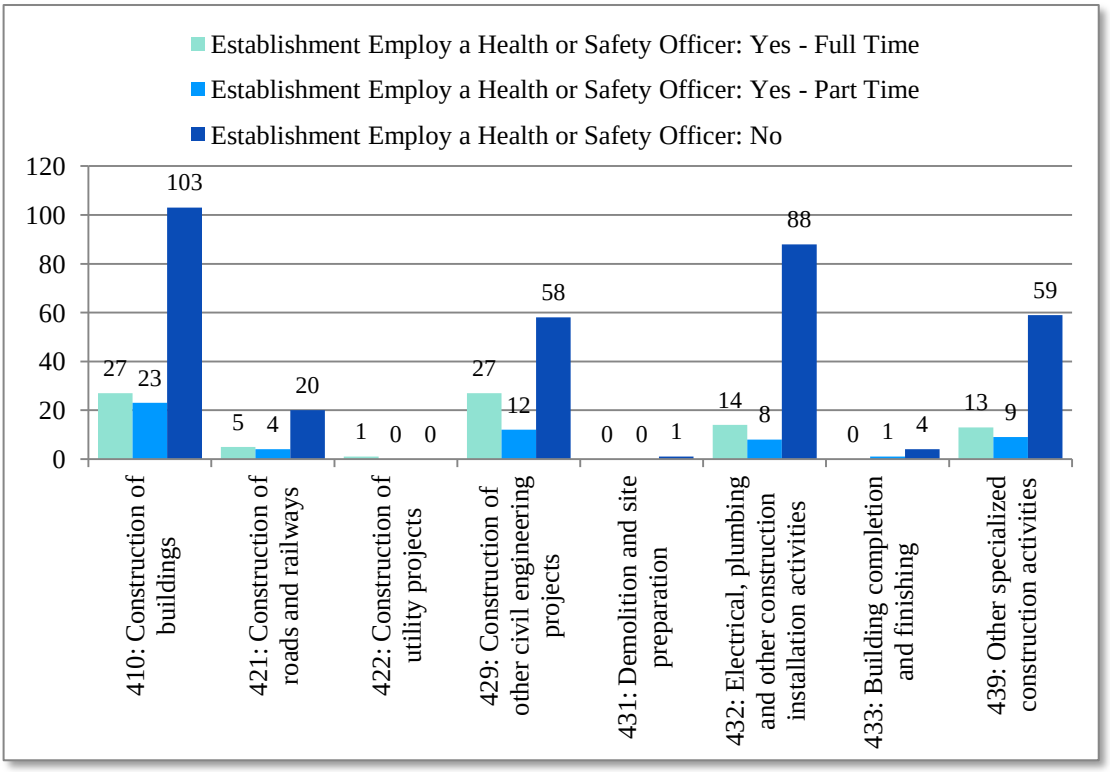
Out of the 57 enterprises which engaged health and safety officers on part-time basis, 23 enterprises (40.35 percent) were in the construction of buildings; 12 enterprises (21.05 percent) were in the construction of other civil engineering projects; 9 enterprises (15.79 percent) were in the construction of other specialized construction activities; 8 enterprises (9.2 percent) were in electrical, plumbing and other construction installation activities, 4 enterprises (4.6 percent) were construction of roads and railways and 1 enterprise was building completion and finishing.

Out of the 333 enterprises which did not engage any health and safety officer, 103 enterprises (30.9 percent) were in the construction of buildings; 88 enterprises (26.4 percent) were in the electrical, plumbing and other construction installation activities; 59 enterprises (17.7 percent) were in other specialized construction activities; 58 enterprises (17.4 percent) were in the construction of other civil engineering projects; 4 enterprises (1.2 percent) were in building completion and finishing and 1 enterprise (0.3 percent) was in demolition and site preparation.

Table 6.8: Employment of Health or Safety Officer by Large Contractors, 2010

ISIC Rev 4	Construction Activity	Yes - Full Time	Yes - Part Time	No
410	Construction of buildings	27	23	103
421	Construction of roads and railways	5	4	20
422	Construction of utility projects	1	0	0
429	Construction of other civil engineering projects	27	12	58
431	Demolition and site preparation	0	0	1
432	Electrical, plumbing and other construction installation activities	14	8	88
433	Building completion and finishing	0	1	4
439	Other specialized construction activities	13	9	59
4	**Total**	**87**	**57**	**333**

Figure 6.8: Employment of Health or Safety Officer by Large Contractors



6.7 Value Added in Construction Industry by Activity

The Tanzania construction sector continues to be one of the most exciting sectors in the Tanzanian economy. The sector is currently experiencing a period of growth primarily driven by the recent developments in the roadwork, housing and mining industries. The growth rate of the sector decreased to 9.0% in 2011/12 from 10.2% in 2010/11 and the contribution of construction activity to the overall GDP was about 8% in 2011/12. This section demonstrates the structure of value added by activity and class. Total value added is the business contribution to the gross domestic product (GDP). It is a function of capital and labour inputs. Value added measures the total value of the activities of all businesses and organizations in an industry.

In statistics, it may be equal to the value of the output of the business (sales or turnover) less its purchases of goods, services, and raw materials (including imported items) from other businesses. These purchases are used in the production of goods and are sometimes termed intermediate inputs. Also, value added may be computed as the sum of wages, salaries, profits and operating surplus accrued by all firms and enterprises within an industry and/or sector.

Table 6.8 gives the estimate of value added in the construction industry by activity for large and small contractors. It also gives gross output and production costs by activity.

Table 6.9: Value Added in Construction Industry by Activity, 2010

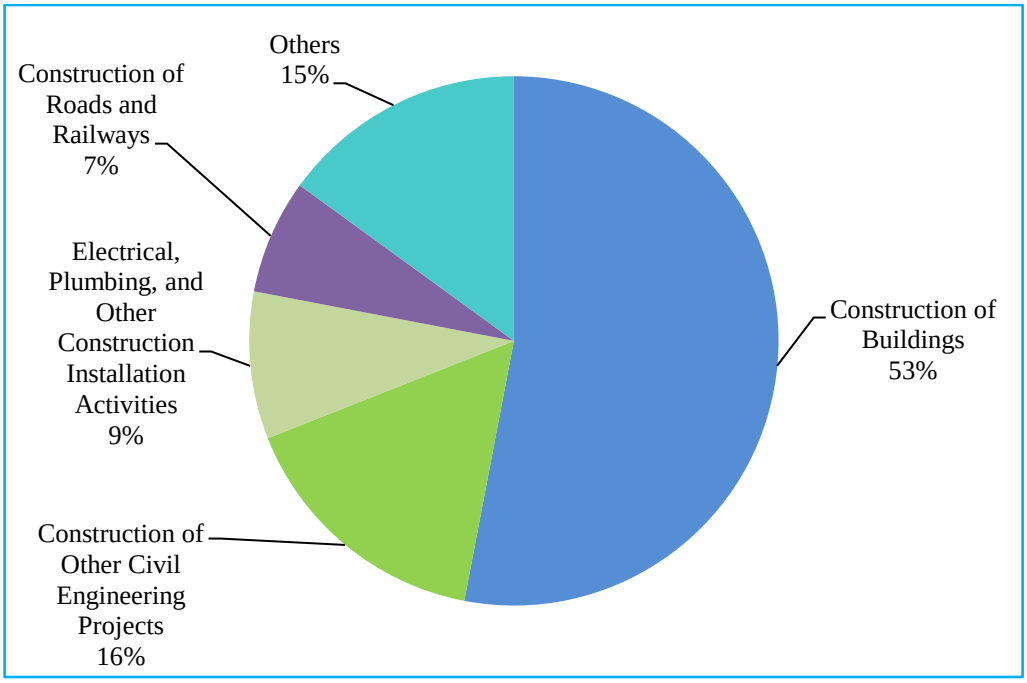
(000' Tshs)

ISIC Rev 4	Construction Activity	Large Contractors			Small Contractors		
		Gross Output	Production Costs	Value Added	Gross Output	Production Costs	Value Added
410	Construction of buildings	641,607,381	268,422,715	373,184,666	450,569,058	221,453,933	229,115,125
421	Construction of roads and railways	58,056,891	10,098,685	47,958,206	74,368,170	30,333,732	44,034,438
422	Construction of utility projects	4,172	2,255	1,917	2,956	1,598	1,358
429	Construction of other civil engineering projects	248,247,185	140,319,364	107,927,821	255,209,878	103,301,265	151,908,613
431	Demolition and site preparation	626,651	618,915	7,736	357,754	193,628	164,126
432	Electrical, plumbing and other construction installation activities	130,919,088	65,810,473	65,108,615	71,994,472	36,105,912	35,888,559
433	Building completion and finishing	6,420,110	5,920,037	500,073	8,162,520	6,124,400	2,038,120
439	Other specialized construction activities	206,272,748	102,850,051	103,422,697	43,501,282	17,414,674	26,086,609
4	**Total**	**1,292,154,226**	**594,042,495**	**698,111,731**	**904,166,090**	**414,929,142**	**489,236,948**

Table 6.8 reveals that total value added in the construction industry was TShs 1,187,348,679 thousand of which, large contractors contributed TShs 698,111,731 thousand (59 percent) while small contractors contributed TShs 489,236,948 thousand (41 percent).

In regard to large contractors, construction of buildings had the largest value added of TShs 373,184,666 thousand (53 percent of the total value added for the sector) followed by construction of other civil engineering projects with TShs 107,927,821 thousand (16 percent); other specialized construction activities with TShs 103,422,697 thousand (15 percent); electrical plumbing and other construction installation activities with TShs 65,108,615 thousand (9 percent); and construction of roads and railways with TShs 47,958,206 thousand (7 percent). The contribution of each of the remaining activities was less than one percent contribution, (Table 6.8 and Figure 6.9).

Figure 6.9: Percentage Value Added for Large Contractors by Activity



For small contractors, construction of buildings had the largest value added of TShs 229,115,125 thousand (47 percent) followed by construction of other civil engineering projects with TShs 151,908,613 thousand (31 percent); construction of roads and railways with TShs 44,034,438 thousand (9 percent); electrical plumbing and other construction installation activities with TShs 35,888,559 thousand (7 percent); and other specialized construction activities with TShs 26,086,609 thousand (5 percent). Each of the remaining activities contributed less than one percent of the value added for the sector.

6.8 Gross Output by Construction Activity and Class

This section presents the estimates of gross output by activity and class where gross output includes the value of products and by-products made by the enterprises during the reference period regardless of whether they were sold or still part of stock; the value of services provided or work done by the enterprises for others; the sales value of goods sold in the same condition as purchased and the net value of work in progress. The components of gross output are gross revenue plus change in work in progress plus change in stocks minus purchases for resale.

Table 6.10 (a): Gross Output for Large Contractors by Activity and Class, 2010

(000 'TShs)

ISIC. Rev 4	Construction Activity	Class I	Class II	Class III	Class IV	Total Value	Total %age
410	Construction of buildings	414,765,683	60,083,520	81,461,789	85,296,389	**641,607,381**	**49.7**
421	Construction of roads and railways	35,349,044	2,786,560	15,843,881	4,077,406	**58,056,891**	**4.5**
422	Construction of utility projects	4,172	0	0	0	**4,172**	**0.0**
429	Construction of other civil engineering projects	159,958,098	4,284,998	43,749,073	40,255,016	**248,247,185**	**19.2**
431	Demolition and site preparation	0	0	0	626,651	**626,651**	**0.0**
432	Electrical, plumbing and other construction installation activities	94,242,113	17,091,729	11,596,771	7,988,475	**130,919,088**	**10.1**
433	Building completion and finishing	907,849	1,898,228	3,214,918	399,115	**6,420,110**	**0.5**
439	Other specialized construction activities	130,043,799	26,980,217	26,504,067	22,744,665	**206,272,748**	**16.0**
4	**Total**	**835,270,758**	**113,125,252**	**182,370,499**	**161,387,717**	**1,292,154,226**	**100**

Tables 6.10(a) and 6.10(b) gives the estimates of gross output for construction industry by activity and class for large and small contractors. The tables show that construction of buildings and construction of other civil engineering projects recorded the largest value at TShs 641,607,381 thousand (49.7 percent) and TShs 248,247,185 thousand (19.2 percent) respectively for large contractors and TShs 450,569,058 thousand (49.8 percent) and TShs 255,209,878 thousand (28.2 percent) for small contractors. A similar trend is observed in all classes except class II.

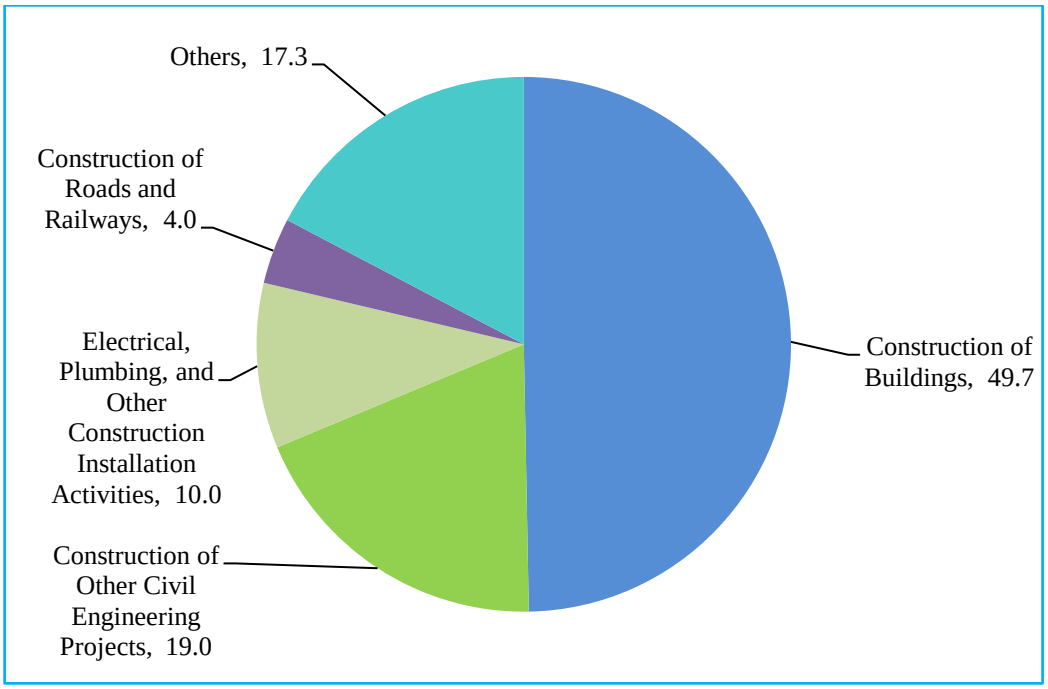
Table 6.10 (b): Gross Output for Small Contractors by Activity and Class, 2010

(000' TShs)

ISIC Rev 4	Construction Activity	Class V	Class VI	Class VII	Total Value	Total %age
410	Construction of buildings	160,846,880	72,467,385	217,254,793	450,569,058	**49.8**
421	Construction of roads and railways	37,736,719	27,502,473	9,128,978	74,368,170	**8.2**
422	Construction of utility projects	0	2,956	0	2,956	**0.0**
429	Construction of other civil engineering projects	116,687,022	72,928,966	65,593,889	255,209,878	**28.2**
431	Demolition and site preparation	0	0	357,754	357,754	**0.0**
432	Electrical, plumbing and other construction installation activities	30,612,605	13,094,849	28,287,018	71,994,472	**8.0**
433	Building completion and finishing	459,978	624,326	7,078,216	8,162,520	**0.9**
439	Other specialized construction activities	8,242,723	11,862,739	23,395,821	43,501,282	**4.8**
	Total	**354,585,927**	**198,483,695**	**351,096,469**	**904,166,090**	**100**

The results show that, out of the total construction industry gross output, 49.7 percent was from the construction of buildings (Figure 6.10(a)). As for classes, class I was the main contributor to the gross output for large contractors which accounted for 65 percent. For small contractors, classes V and VII were the main contributors to the gross output (Figures 6.10(b), and 6.10(c)).

Figure 6.10 (a): Percentage of Gross Output by Industrial Activity



Increases in aggregate demand for commercial and residential buildings made construction of buildings activity to record a high gross output followed by construction of other civil engineering projects. Moreover, availability of construction equipment and machinery contributed to the high gross output of the sector. However, construction of utility projects requires advanced technology with appropriate machinery and equipment and skilled labor for the sector development

Indeed, there is a positive sign of growth of construction industry especially construction of buildings and construction of other civil engineering projects which seem to be a major contributors to the gross domestic product (GDP) contributing about 50 percent of all the gross output compared with other activities like construction of utility projects and demolition and site preparation which did not contribute as much as needed to the gross domestic product.

Figure 6.10 (b): Percentage of Gross Output by Class (Large Contractors)

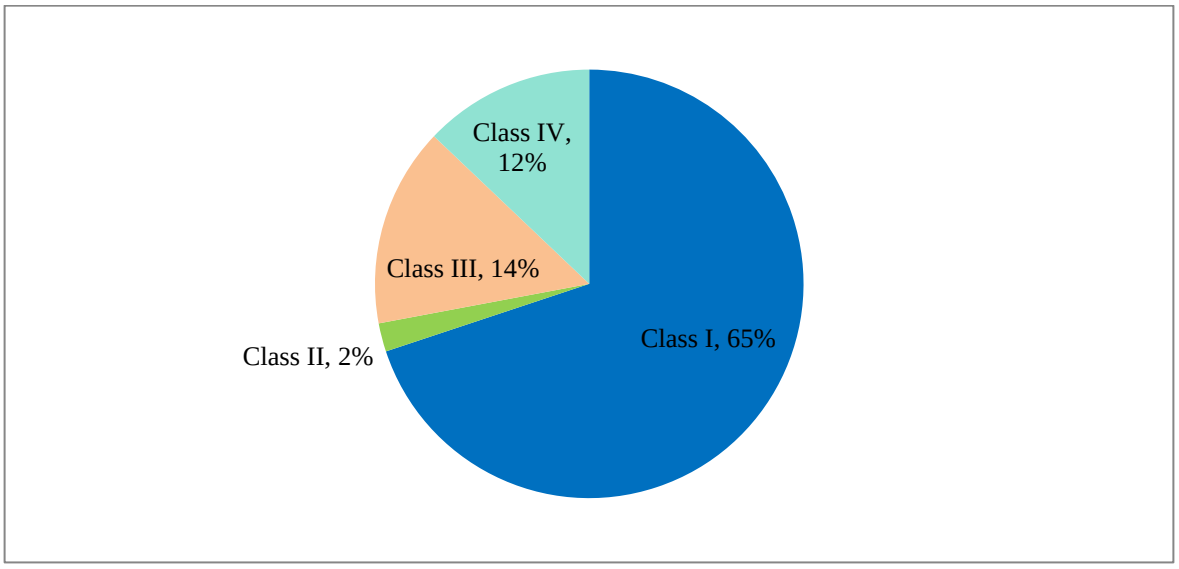
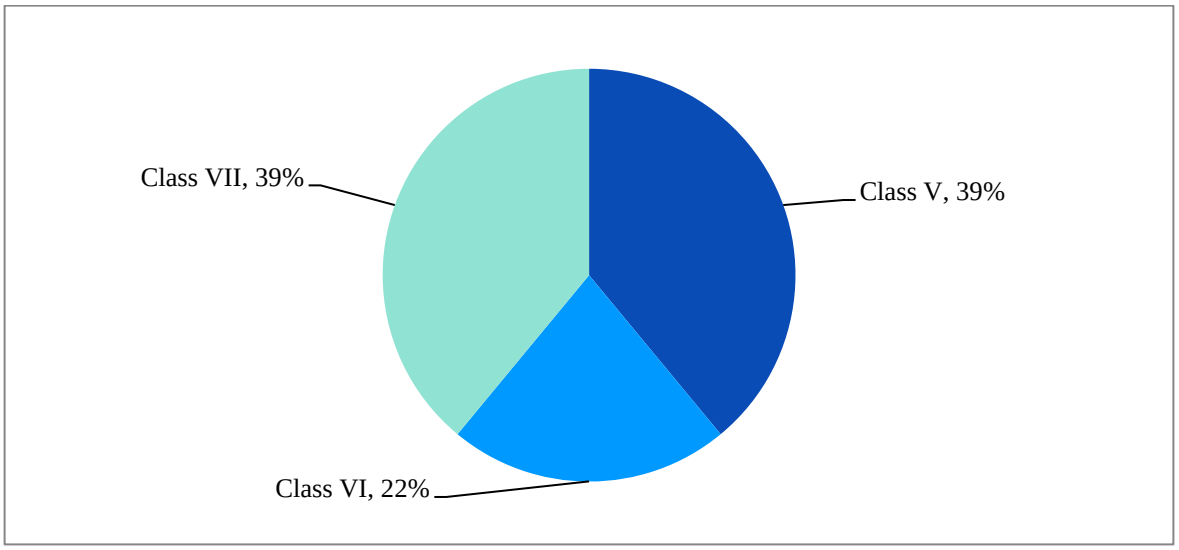


Figure 6.10 (c): Gross Output by Class (Small Contractors)



6.9 Value Added by Activity and Class

This section demonstrates the structure of value added by activity and class. Tables 6.11(a) and 6.11(b) portray the estimate of value added by activity and class for both large and small contractors. All values are in thousand Tanzanian shillings.

Table 6.11 (a): Value Added for Large Contractors by Activity and Class, 2010

(000'TShs)

ISIC. Rev 4	Construction Activity	Class I	Class II	Class III	Class IV	Total
410	Construction of buildings	220,996,652	39,764,984	59,549,218	52,873,812	**373,184,666**
421	Construction of roads and railways	33,040,493	449,573	13,187,498	1,280,642	**47,958,206**
422	Construction of utility projects	1,917	0	0	0	**1,917**
429	Construction of other civil engineering projects	72,154,868	525,163	19,849,680	15,398,110	**107,927,821**
431	Demolition and site preparation	0	0	0	7,736	**7,736**
432	Electrical, plumbing and other construction installation activities	48,676,971	8,286,994	5,615,391	2,529,259	**65,108,615**
433	Building completion and finishing	248,842	21,647	46,207	183,377	**500,073**
439	Other specialized construction activities	67,767,762	11,258,888	7,617,066	16,778,981	**103,422,697**
4	**Total**	**442,887,505**	**60,307,249**	**105,865,060**	**89,051,917**	**698,111,731**

Table 6.10 (b): Value Added for Small Contractors by Activity and Class, 2010

(000'TShs)

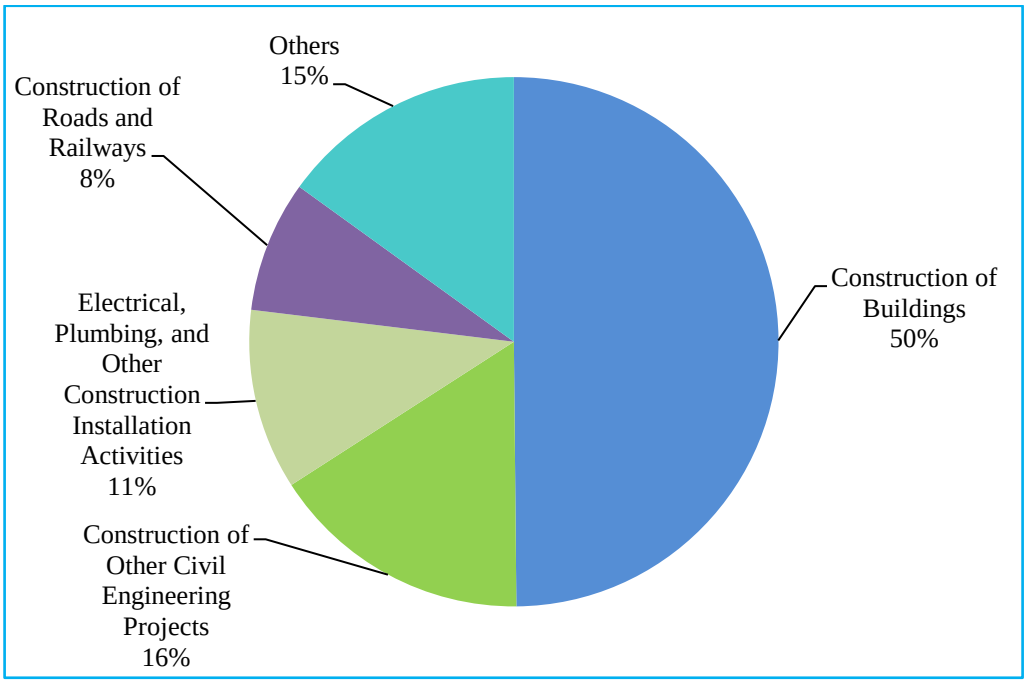
ISIC Rev 4	Construction Activity	Class V	Class VI	Class VII	Total
410	Construction of buildings	66,178,129	36,789,354	126,147,642	**229,115,125**
421	Construction of roads and railways	32,895,534	6,660,170	4,478,734	**44,034,438**
422	Construction of utility projects	0	1,358	0	**1,358**
429	Construction of other civil engineering projects	77,339,731	45,335,983	29,232,899	**151,908,613**
431	Demolition and site preparation	0	0	164,126	**164,126**
432	Electrical, plumbing and other construction installation activities	17,790,736	5,480,241	12,617,582	**35,888,559**
433	Building completion and finishing	82,751	378,804	1,576,565	**2,038,120**
439	Other specialized construction activities	4,021,004	5,062,463	17,003,141	**26,086,609**
4	**Total**	**198,307,886**	**99,708,373**	**191,220,689**	**489,236,948**

Tables 6.11(a) and 6.11(b) show that in respect of total value added by the activity, Tshs 602,299,791 thousand (50 percent) was made from construction of buildings for both large and small contractors. It was followed by construction of other civil engineering projects accounting for TShs. 259,836,434 thousand, (21.9 percent), other specialized construction activities with TShs. 129,509,306 thousand, (10.9 percent), electrical plumbing and other construction installation activities accounting for TShs. 100,997,174 thousand, (8.5 percent) and construction of roads and railways with TShs. 91,992,644 thousand, (7.7 percent). The share of each of the remaining activities was less than 1 percent. (Figure 6.11).

The growth of the tourism, trade, hotel and restaurant sector and increasing demand for housing made construction of buildings, construction of other civil engineering projects and other specialized construction activities to record high value added.

Total investment in construction industry is gradually growing and expected to expand rapidly in the years to come though there are some challenges facing the sector like high prices of construction materials mainly due to high inflation rate, shortage of appropriate machinery and equipment, shortage of experts (skilled labor) in the sector and shortage of power supply.

Figure 6.11: Value Added by Activity



6.10 Construction Value Added and Economic Growth

There is evidence of the existence of a very strong relationship between construction GVA and economic growth. As an investment sector, construction has the potential to impact positively on short-run growth. Construction can thus be regarded as a major component of investment programmes during the last ten years in Tanzania Mainland.

It can be eluded that the generally sharp growth in construction share of GDP during the last ten years in Tanzania Mainland resulted in a huge demand for additional resources in the form of

material, plant and manpower. These were successfully imported to meet the expanding service sector needs. The importation of financial, capital and technological resources may be costly as these have to be paid for in foreign currency. The effect of foreign direct investment in this regard, would need to be accommodated and integrated.

Construction is an important part of the development and modernization process in Tanzania Mainland. While it is closely correlated with economic growth, it does not follow that providing incentives and increased spending on projects necessarily leads to economic growth. In a sense, like in any other sector, increased spending in the construction sector does stimulate economic growth. The construction sector deals mainly with the provision of capital infrastructure, which has an impact on economic growth. The delivery of such infrastructure creates significant employment opportunities for the population, which generates further investment in other sectors of the economy through the multiplier effect.

Considering the fundamental significance of the construction sector in employment creation, capital formation and its aggregate spillover effects, it is clearly an important sector in the economy. That does not mean that it drives economic growth. This makes it all the more important to identify the minimum necessary and sufficient conditions for economic growth.

CHAPTER SEVEN

CONCLUSION AND POLICY RECOMMENDATIONS

7 Introduction

The National Bureau of Statistics (NBS) is mandated to collect, process, analyze and publish official statistics in the country. This mandate is executed through the conduct of censuses and surveys, as well as the use of administrative records. This Analytical Report of the Integrated Business Survey (IBS) 2010 covers Construction activities in Tanzania Mainland. The construction industry is a sector of the economy that transforms various resources into constructed physical economic and social infrastructure necessary for socio-economic development. The construction industry in Tanzania Mainland is among the fast growing sectors but lacks information/data to accurately measure its performance and contribution to the economy, (URT, Economic Surveys). The main objective of the current Integrated Business Survey, (IBS), was to measure performance of key indicators of the construction and trade sectors of the economy. The information collected was to be used in the compilation of national accounts aggregates such as Gross Domestic Product (GDP).

The Tanzania construction industry continues to be one of the most exciting sectors in the Tanzanian economy. This sector is currently experiencing a period of growth primarily driven by the recent development in the roadwork, housing and mining industries. This chapter concludes the study by providing the summary of the Integrated Business Survey (IBS) and policy recommendations. The main objective of the current Integrated Business Survey (IBS), was to measure performance of key indicators of the construction sector of the economy.

The chapter is divided into two sections. Section 7.1 summarizes the study by presenting a brief discussion on the importance of construction industry, the objectives and main research findings of this research work. Section 7.2 provides and discusses the policy recommendations.

7.1 Main Findings

7.1.1 Important and high growth infrastructure sector

The Tanzanian construction industry is an important contributor to Gross Domestic Product (GDP) of the economy and in determining economic growth. The average real rate of output growth of the construction sector was about 10.5 percent; the second highest growth sector was telecommunication and communication sector. In volume terms, the construction industry accounted for 6.8% of GDP in 2003-2010. The industry experienced eight consecutive years of high growth and share of GDP. As in 2010 the construction industry employed 9.1% of the formal workforce, making it Tanzania Mainland's fourth largest industry.

However, the construction industry is faced by problems and challenges. These include inadequate institutional co-ordination of planning between construction industry and other sectors of the economy; inadequate fiscal and non-fiscal incentives and motivation of workers; inadequate members of skilled, qualified and experienced personnel; inadequate working capital for family firms and building sub-sectors, and the government as main investor is having few public consultants and contracting organizations.

7.1.2 A pyramid construction industry structure

The Tanzania construction sector portrays a pyramid structure which is a structure with most of the weight closer to the ground, and with the few large firms at the top and many small and medium firms at the bottom. Most of the bottom contractors in class VII are weak due to inadequate working capital and lack of adequate support from the government and financial institutions. They face inadequate and erratic work opportunities, inappropriate contract packaging of works which favour foreign firms in donor funded projects, low public investment in infrastructure projects and over dependence on donor funding. Those in upper levels are few large operators who are well connected into government and financial institutions.

7.1.3 Weak local construction capacity

The participation of the local construction industry in available work opportunities is currently about 14% in terms of value. Enhanced participation in construction sector work opportunities is a wish of every local supplier of goods and services. Low participation is a result of stiff

competition from foreign operators aggravated by poor capacity of the local players (be it contractors, consultants or material suppliers) and inadequate supportive environment. Inadequate capacity of local contractors and consultants is a result of factors that include lack of skills, inadequate capital, unfavorable donor conditions and application of inappropriate delivery practices.

7.1.4 Improvement of Public Sector Delivery

There is an inadequate capacity of the public sector – at central government level – to efficiently manage the procurement process and contract supervision and administration. Also, the local government authorities are facing even more of constraints due to the fact that contracting of works and services are new areas of operating. These government inadequacies are due to factors that include lack of appropriate technical and managerial skills, understaffing, inadequate working facilities, poor remuneration and bureaucracy.

7.1.5 Performance Improvement of Informal Construction Sector

The micro and small scale informal construction firms are engaged in economic activities in construction involving the supply of labour, production of building materials and building components. It is also involved in the production of buildings - without the involvement of formal contractors - directly in response to client needs. The informal construction sector has a great role to play in the development of the construction industry and the economy - particularly with regard to employment creation and supply of houses in rural and urban areas. It is, however, beset by a number of constraints, which negate its effective contribution. Such constraints include lack of adequate skills, lack of capital, prohibitive regulations, and insecure operating environment.

7.1.6 Significant construction sector employment

The Tanzania construction sector is a labour-intensive activity, with the capacity to provide extensive employment and income opportunities with very little investment. The industry provides a point of entry into the labour market for urban -rural migrant workers and it employs some of the least educated from the poor families. There were about 109,879 persons engaged in the construction industry of whom 20,215 persons (18.4 percent) were in large contractors and 89,664 persons (81.6 percent) were engaged in small contractors. This suggests that small and

medium scale construction firms employ many people, i.e., it is a labour intensive and therefore can be used as one of important sector in absorbing labour power from technical and vocational education and training institutions in Tanzania.

Most small and medium firms employ all job categories ranging from managerial staff, operative staff to auxiliary staff. Tanzanian construction sector is dominated by many micro, small and medium sector operators and including indirect jobs, it is projected to provide employment to more than 1.5 million people in Tanzania Mainland.

7.1.7 Low Female Participation in the Construction Sector

The proportions of females in persons engaged are relatively low in the construction sector in Tanzania Mainland. The number of females in construction industry is smaller than that of males due to the fact that women face various social structural constraints for their effective participation in economic activities. These include, poor customary laws and norms which impede women to a greater extent than men, from obtaining land, credit, productive inputs, education, and information; the coexistence of multiple laws which create ambivalence (for example, customary and statute laws relating to marriage and inheritance); gender bias in access to basic human resource development services such as education and vocational training, resulting in gender gaps in adult and youth literacy rates and recurring poverty, resulting from women's multiple and competing reproductive and productive responsibilities.

7.1.8 Construction consumes significant amount of raw materials, energy and water

The construction industry consumes a significant amount of raw materials—many of which require large amounts of energy to process and produce. It is estimated that as much as 50 percent of all materials extracted from the earth are transformed into construction materials. Electricity accounted for 49.5 percent of the total cost; water consumed accounted for 40.8 percent, while waste water costs were 9.8 percent.

7.1.9 Electrical fittings are one of most important intermediate inputs

The electrical fittings are one of most important intermediate inputs and had the highest value, followed by cement and steel/iron bars. The electricity fixtures include, fixed partitions and doors; electrical installations; electric sockets; light fittings; security alarm systems; television

aerials and satellite dishes; fires and fire surrounds; central-heating boilers and radiators. The electricity fittings/ furnishings include demountable partition systems; telephone systems; CCTV systems; refrigerators and washing machines, computers and other it equipment; lamps and lampshades.

7.1.10 Increasing cement consumption in the construction sector

Cement is the second important material consumed in the Tanzania construction sector. It is noted that the cement industry sector contributes to the development of the important infrastructural facilities needed to speed up economic development of Tanzania. A recent report shows that the local cement production in Tanzania is expected to grow by 18 per cent in 2012. However, this speed should stand on firm ground if the retail business, infrastructure development and mining investments are sustained. Today, the construction and housing sector which has compounded the annual growth rate of about 10 per cent is the main drive of cement consumption, thus pushing up demand of the commodity.

Tanzania's current production capacity stands at 3.01 metric tonnes while the demand of 2.1 metric tonnes is still a net importer and there are plans to increase capacity to 750,000 metric tonnes. The industry estimates that 90 percent of cement consumption is used for residential purposes, the majority of which is for the construction of new buildings. The usage of cement product in the country has increased substantially as the demand of the product is high Taxation

7.1.11 Complex taxation regime

As in many industry producing jurisdictions, incomes earned in Tanzania from the construction sector activities have historically been subject to complex taxation regime. These include the Finance Act 1997, the Financial Laws (miscellaneous amendments) Act 1997 and other Government Notices and Orders provided the instruments for enforcing a distinct regime applicable to the construction sector. VAT has been one of the most important effective taxation instruments accounting for about 63 percent of the total tax in construction sector for large contractors. Income and corporate tax as the second most important source of government revenue in the construction sector accounting for about 30 percent of the total tax.

The total tax to total disbursement was 34.5 percent in construction sector for large contractors. The total tax as a percentage of gross output was 2.4 percent, while as a percentage of total production cost was 5.2 percent. The construction industry poses a number of challenges. These include (i) lack of transparency in the process of sub-contracting work; (ii) sometimes the final retention money which is 2.5% can easily escape taxation especially when it is paid to small firms, and (iii), most of the local construction is undertaken informally by firms or individuals who are not registered with TRA.

7.1.12 Little Employment on Health /Safety Officers

Health and safety provide an opportunity for the contractor to put in place ways of working and a culture that can positively and effectively change the behaviour and competence of their work people. Precautions have to be taken into account against health hazards for the workmen on site. Safety measures have to be in place and including protective gears for each workmen employed on site. Water for the employed labour has to be in place too for the construction of buildings, roads and railways. Few construction companies employed health/safety officers on full or part time basis.

7.1.13 Value Added in the Construction Industry by Activity

The Tanzania construction sector continues to experience period of high growth rate primarily driven by the recent developments in the roadwork, housing and mining industries. However, the recent growth rate of the sector decreased to 9.0% in 2011/12 from 10.2% in 2010/11 and the contribution of construction activity to the overall GDP was about 8% in 2011/12. The total value added in the construction industry was TShs 1,187,348,679 thousand of which, large contractors contributed TShs 698,111,731 thousand (59 percent) while small contractors contributed TShs 489,236,948 thousand (41 percent).

7.2 Policy Recommendations

The economy of Tanzania is confronted by severe difficulties owing to a combination of higher energy costs, falling exchange rates and rising inflation. At the same time, the country faces immense social problems such as rising urban population and unemployment, which are putting pressure on the nation’s resources and capabilities. The construction industry in a typical developing country such as Tanzania is facing reduced levels of demand as a result of

adjustment programmes which invariably involve cuts in governments' capital investment. The challenge is that the construction industry should do well despite the severe constraints in its operating environment. Moreover, the construction industry must help the national economy to recover, and also contribute to the easing of the social problems.

The construction industry is a fundamental economic sector which permeates most of the other sectors as it transforms various resources into constructed physical economic and social infrastructure necessary for socio-economic development. It embraces the process by which the physical infrastructure are planned, designed, procured, constructed or produced, altered, repaired, maintained, and demolished. Thus, the realization of major national development policies, strategies and reforms largely depends on the existence of a reliable and competitive local construction industry that is capable of delivering quality services and value for money in the development and maintenance of the physical infrastructure.

Since independence there have been a number of initiatives geared towards fostering the local construction industry. Despite such interventions, the state of the local construction industry has remained weak or poor. Performance constraints include inadequate capacity of local contractors and consultants, inadequate public sector delivery capacity, erratic work opportunities, use of outdated technologies and practices, lack of effective supporting policies and poor state of the economy. Thus, the report argue for the need to create an enabling environment for the development of a vibrant, efficient and sustainable local construction industry that meets the demand for its services to support sustainable economic and social development objectives.

Ways must be found to take advantage of the special features of construction which offer unique opportunities. First, the construction industry should effectively play its role in the economy by realizing its potential to create jobs in all parts of the country as well as stimulating business activities in other sectors of the economy. New strategies are necessary to make this possible. Second, construction activities should lay the infrastructure for development. With public funds under severe strain and chronically short, ways must be found to structure funding strategies which are suitable for Tanzania. Investment approaches which broaden the base of ownership among the population and give the immediate community a stake in major development projects could be formulated.

In order to realize tangible results in terms of improvements in the performance of, and prospects for, the construction industry, several other issues require attention. First, the agency should formulate long-term plans for developing the industry (Ofori, 1993). These should be supported by comprehensive reviews of the state of the industry and its concerns and imperatives. Second, resources should be allocated to the tasks outlined, and effectively utilized. One of the most important resources is people, and in particular, the personnel of the agency. Even more important is leadership (Miles and Neale, 1991). Third, the agency should be in close contact with the industry, and have complete control over all its aspects. Fourth, as mentioned above, the construction industry should, preferably, have a role to play in the work of the agency in formulating and implementing its plans. Finally, the agency should be continuously relevant. This implies that its plans, policies, initiatives, procedures and communication channels should be continually reviewed and fine-tuned or radically restructured where necessary.

Corporate development is of crucial importance. Construction industries need companies which take a long-term view, and are prepared to invest in human resource, equipment and research and development in order to improve their performance. However, like in all other developing countries, the construction enterprises in Tanzania are known for their lack of knowledge, short-term orientation and lack of focus on construction (Ofori, 1991). As noted earlier, they are also unable to employ qualified personnel, and/or unwilling to appoint them to positions of responsibility. Management development should be a key concern in the construction firms of the developing countries.

Improvements and changes are required in working conditions, training and skills, design approaches, use of technology and company relationships. Such changes in culture and structure are essential to enable improvements in the project process to meet ambition of construction industry. In order to bring cultural changes the construction sector must start by valuing male and female equally. It is not only the quality of the workforce but also how they are treated. Today the workforce is undervalued, under - resourced, and generally treated as a commodity rather than the most important asset. The government and contractors should make recommendations for recruitment of women into construction must hub at the elementary and secondary schools and conversing with students about the prospects offered within the industry, and ensure equal opportunities exists for women working within the sector and ensure them to remain within it. Employers must also be sensitive to providing better facilities and employing permanent health officers.

Whilst some changes may take time, others can be delivered almost immediately. Facilities for workers at site are generally poor and clients do not like such poor image of the industry. It is not a very big step to provide workers with uniform, proper ablution facilities and rest room areas. Work sites should become advertisements for the industry. Furthermore, health and safety record of construction is bad. Accidents seem to take place when either workers are not trained or working out of processes. The industry must reflect not only on the purely welfare consequences of a poor health and safety record but to consider its cost in relation to lost work days, potential prosecutions and even enforced closure of sites.

7.2.1 Improve capacity and competitiveness of the local construction sector

The study recommends the need to improve the capacity and competitiveness of the local construction enterprises (contractors, consultants and informal sector) to enable them undertake most of the construction projects by the year 2015. This can be done when government in collaboration with the private sector promote the application of best practice standards on productivity, quality management and appropriate, state-of-the art, delivery arrangements, (Mlinga and Lema, 2001 and URT, 2008). Also the government shall support the establishment of financing facilities for the construction sector enterprises to access working capital in terms of credit, bonds, guarantees, training funds, and capital for tools and equipment.

7.2.2 Improve government ministerial, department and agencies delivery capacities

The study recommends the need to improve government ministerial, department and agencies delivery capacities. Both the government and the private sector shall adhere to established appropriate procurement practices so as to ensure quality and cost effectiveness in the delivery process, (URT, 2008).

7.2.3 Transformation and development of micro and small sector construction firms

The study recommends the need to encourage, enable and improve the performance of the informal construction sector, (URT, 2002). Support and facilitate transformation of micro and small scale construction to formal small and medium scale construction firms. This starts by recognizing and promoting the useful existence of the informal construction sector as an integral part of the construction industry.

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Annex 1 (A): Total Number of Persons Engaged by Activity and Class, 2010

ISIC Rev 4	Industrial Activity	LARGE CONTRACTORS					SMALL CONTRACTORS			
		Class I	Class II	Class III	Class IV	Total	Class V	Class VI	Class VII	Total
410	Construction of buildings	2,689	1,077	2,054	2,078	7,898	5,701	8,267	19,861	33,829
421	Construction of roads and railways	282	138	323	184	927	726	9,421	1,477	11,624
422	Construction of utility projects	4	0	0	0	4	0	36	0	36
429	Construction of other civil engineering projects	2,001	125	624	1,489	4,239	6,703	7,356	14,085	28,144
431	Demolition and site preparation	0	0	0	63	63	0	0	36	36
432	Electrical, plumbing and other construction installation activities	1,172	714	836	211	2,933	4,248	625	3,942	8,815
433	Building completion and finishing	84	32	55	30	201	65	133	240	439
439	Other specialized construction activities	1,384	1,020	1,336	210	3,950	1,405	2,859	2,478	6,742
4	**Total**	**7,616**	**3,106**	**5,228**	**4,265**	**20,215**	**18,848**	**28,697**	**42,119**	**89,664**

Annex 1 (B): Percent of Persons Engaged by Activity and Class, 2010

ISIC Rev 4	Industrial Activity	LARGE CONTRACTORS					SMALL CONTRACTORS			
		Class I	Class II	Class III	Class VI	Total	Class V	Class VI	Class VII	Total
410	Construction of buildings	13.3	5.3	10.2	10.3	39.1	6.4	9.2	22.2	37.7
421	Construction of roads and railways	1.4	0.7	1.6	0.9	4.6	0.8	10.5	1.6	13.0
422	Construction of utility projects	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
429	Construction of other civil engineering projects	9.9	0.6	3.1	7.4	21.0	7.5	8.2	15.7	31.4
431	Demolition and site preparation	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0
432	Electrical, plumbing and other construction installation activities	5.8	3.5	4.1	1.0	14.5	4.7	0.7	4.4	9.8
433	Building completion and finishing	0.4	0.2	0.3	0.1	1.0	0.1	0.1	0.3	0.5
439	Other specialized construction activities	6.8	5.0	6.6	1.0	19.5	1.6	3.2	2.8	7.5
4	**Total**	**37.7**	**15.4**	**25.9**	**21.1**	**100.0**	**21.0**	**32.0**	**47.0**	**100.0**

Annex 2 : Persons involved in 2010 Integrated Business Survey

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Annex 2 : Questionnaire

Confidential **FORM B** **CIS 2**

SERIAL NUMBER

THE UNITED REPUBLIC OFTANZANIA

MINISTRY OF FINANCE

NATIONAL BUREAU OF STATISTICS

CONSTRUCTION INDUSTRY SURVEY 2010

(For official use only)

ISIC Code .....

Regional Code .....

District Code .....

Ward Code .....

Street Name .....

Dear Sir/Madam,

Under the Statistics Act 2002, you are required to co-operate in completing this form together with a copy of your **profit and loss account/balance sheet.** In accordance with the Act, all information supplied in this return shall be treated as **STRICTLY CONFIDENTIAL**. The information will be used for statistical purposes only and not otherwise. The figures should be taken from the accounts of the establishment for the accounting year covering larger part of the reference year . **If actual figures are not available, please give your best estimates.**

FOR OFFICE USE

Enumerator's Name ..... **Signature** .....

Supervisor's Name ..... **Signature** .....

1. CHARACTERISTICS OF ESTABLISHMENT

1.1 Full Name of establishment ……

1.2 Address of establishment ……

Telephone Number …… Fax No……

E-mail……...

1.3 **Physical Location of Establishment:**

District:…… Road/Street :……..

Ward: …… Plot Number:……..

City / Town/ Village :…….

(For official use only)

1.4 Activities of establishment

1. Main activity ……

2. Secondary activity (if any) (i) ……

(ii) ……

1.5 Do you have any branch of your establishmets? **Yes** 1 **No** 2

1.6 List all establishments/branches covered

Name	**Address**
…….	...……
…….	...……
…….	...……

1.7 Does the accounts include those from branches? **Yes** 1 **No** 2

1.8 Date of start of operation: Month …… Year ……

1.9 Did your establishment operate in any period of the year 2010? **Yes** 1 **No** 2

1.10 The reference period used for filling this form is from January 1st to December 31st 2010 or

From …….. To……

1.11 Type of ownership of establishment ***(choose appropriate code)***

1	Individual proprietor	5	Cooperative
2	Partnership	6	Private company
3	Public	7	Private limited company
4	Parastatal	8	Other (specify) ……

1.12 Equity participation

(circle appropriate code)

Tanzanian owned 1 Joint Tanzanian / Foreign … 2 Foreign owned…… 3

(i) If 2, give percentage of equity participation of foreign ……

(ii) If 2 or 3, state nationality of foreign ownership (main) ……

1.13 Is the establishment's expenditure separate from that of the owner's household? **Yes** 1 **No** 2

1.14 Are the establishment's assets separate from those of the owner's household? **Yes** 1 **No** 2

1.15 Do you keep any record of accounts (Receipts & Expenditure) for your establishment? **Yes** 1 **No** 2

2. EMPLOYMENT AND HOURS OF WORK

2.1 Employment trend

	Mar 2010	Jun 2010	Sep 2010	Dec 2010
1. Total number of persons engaged				

2.2 Persons engaged as at December 2010

	Tanzanian		Foreign		Total	
	Male	Female	Male	Female	Male	Fema
1. Employer / Working proprietor						
2. Contributing family workers						
3. Employee[1] (i) Administrative staff						
(ii) Operatives						
(iii) Other						
TOTAL						

[1] **Refer to instructions for definition of categories of employees**

2.3 Working days and hours of work (excluding overtime)

1. Number of normal working **days** per week	
2. Number of normal working **hours** per week	

3. LABOUR COST

Tshs 000

Description	Male	Female	Total
1. Wages and salaries *(including productivity, end of year bonus, etc.)*			
2. Overtime payments			
3. Travelling allowance			
4. Payment in kind *(food, accommodation, car facilities and other fringe benefits)*			
5. Severance / termination and retirement pension payments			
6. Work permits			
7. Employer's contribution to (i) NSSF			
(ii) N.P.F			
(iii) Other private funds / insurance schemes			
8. Employer's contribution to welfare funds			
9. Training expenses excluding ICT related training (i) Overseas			
(ii) Local			
10. Other, specify ……			
TOTAL			

4. EXPENDITURE ON GOODS AND SERVICES

4.1 Electricity & water consumed, and waste water charges at purchaser's price[1] **Tshs 000**

Description	Amount
1. Electricity	
2. Water	
3. Waste water charges	

4.2 Fuel consumed at purchaser's price[1] **Tshs 000**

	Diesel	Gasoline	LPG (Gas)	Other	Total
1. Fuel for plant and machinery					
2. Fuel for vehicles					
3. Fuel for other purposes					
Total					

4.3 Materials and supplies purchased at purchaser's price [1] **Tshs 000**

Description			Amount
1. Cement			
2. Sand / rocksand			
3. Aggregates *(macadam)*			
4. Blocks			
5. Steel / iron bars and sheets			
6. Electrical fittings			
7. Plumbing *(water fittings)*	(i)	PVC	
	(ii)	Metal	
	(iii)	Other, specify ……..	
8. Tiles and sanitary wares			
9. Timber *(carpentry and joinery)*			
10. Paint			
11. Openings	(i)	Metal	
	(ii)	PVC	
	(iii)	Other, specify ……..	
12. Other, specify ……..……			
TOTAL			

[1] **Excluding VAT**

4.4 Expenditure on services at purchaser's price[1]

Tshs 000

Description of Services	Amount
1. Printing	
2. Postage	
3. Bank charges	
4. Warehousing, storage and handling charges	
5. Hire of transport	
6. Security services	
7. Consultancy and management services	
8. Expenses on air tickets	
9. Rental of machinery and equipment	
10. Expenditure on environment protection services:	
(i) Solid waste (private collection)	
(ii) Liquid waste (private collection & monitoring)	
(iii) Hazardous waste	
(iv) Air emission monitoring	
11. Research and development	
12. Payment for works subcontracted	
13. Rental of premises	
14. Minor repairs and maintenance:	
(i) Machinery and equipment	
(ii) Vehicles	
(iii) Building	
(iv) Other *(specify)* ……..	
15. Business services:	
(i) Accounting, legal, auditing, etc	
(ii) Advertising and promotion	
(iii) Sponsorship and sport activities	
(iv) Other *(specify)* ……..	
16. Other services *(specify)*: ……	
……	
……..	
TOTAL	

[1] **Excluding VAT**

5. OTHER DISBURSEMENTS

Tshs 000

Description	Amount
1. Rates and licenses: (i) Trade License	
(ii) Tenant's tax	
(iii) Road Tax	
(iv) Other (specify) ……	
2. Value added tax (net amount paid to government)	
3. Interest paid to (i) Residents	
(ii) Non-residents	
4. Dividend paid to (i) Residents	
(ii) Non-residents	
5. General insurance premiums paid (building, vehicle, etc)	
6. Income tax / corporate tax	
7. Purchase of shares	
8. Environment protection fees	
9. Loss on foreign exchange	
10. Land lease	
11. Depreciation	
12. Current transfer to abroad (donations, gifts)	
13. Other (specify) ……	
TOTAL	

6. RECEIPTS

6.1 Receipts from construction activity excluding VAT

Tshs 000

Description	Amount
1. Value of construction work including repairs *(details to be given in Section 8)*	
2. Receipts for subcontracted work	
3. Rental of equipment	
TOTAL	

6.2 Other receipts

Tshs 000

Description		Amount
1. Interest received from	(i) Residents	
	(ii) Non-residents	
2. Dividend received from	(i) Residents	
	(ii) Non-residents	
3. Insurance claims received		
4. Refund from social security schemes (Ne. NSSF, PPF, LAPF etc.)		
5. Gain on foreign exchange		
6. Current transfer from abroad (donations, gifts)		
7. Sale of wastes		
8. Other, specify ……		
TOTAL		

7. FIXED ASSETS

7.1 Fixed assets at purchaser's price for reporting period

Tshs 000

Type of fixed asset	Net book value at beginning of period	Additions *		Sales of fixed assets -	Depre-ciation -	Reval-uation of fixed assets + \ -	Net book value at end of period
		New assets +	Used assets +				
1. Buildings & structure							
2. Land acquisition							
3. Land improvement							
4. Machinery & transport equipment:							
(i) Production equipment							
(ii) Transport equipment							
(iii) Environment protection equipment							
(iv) Other (specify) …….							
5. Furniture and fittings							
6. Other (specify) ……..							
TOTAL							

* including alterations, major repairs and also work done by own establishment

7.2 No. of vehicles owned

(i) Car ☐ (iv) Lorry ☐

(ii) Van ☐ (v) Motorcycle ☐

(iii) Bus ☐ (vi) Other, specify …….. ☐

8. DETAILS ON BUILDING AND CONSTRUCTION OPERATIONS DURING REPORTING PERIOD AS REPORTED AT 6.1.1

Tshs 000

Person, firm or authority for whom work is being done	Site of address of job	Type*	Area** (M^2)	Contract value		Value of Work done during reporting period *(excluding value of work subcontracted)*
				Total	of which subcontracted	
1.						
2.						
3.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						

* Detached residential building, block of residential appartments, office building, hotel, school, factory, road, bridge, etc.

** For construction work such as road construction and pipe laying, etc. state length in metres if applicable.

9. CONSTRUCTION WORK

11.1 Average price charged per unit of construction work

Tshs 000

Description			Unit	Labour charge only	Labour charge and materials
1. Residential building	(i)	Single or 1 Storey house	M^2		
	(ii)	Villa / Bungalow	M^2		
	(iii)	Block of flats	M^2		
2. Non-residential building	(i)	Hotels	M^2		
	(ii)	Shopping malls / Complex	M^2		
	(iii)	Schools	M^2		
	(iv)	Commercial	M^2		
	(v)	Other (specify) ……			
3. Other construction works	(i)	Roads			
	(ii)	Bridges			
	(iii)	Water works			
	(iv)	Waste water works			
	(v)	Electrical works			
	(vi)	Other (specify) ……			

Tshs 000

9.2 Debt repayment .....……..

9.3 Outstanding debt at end of reporting period ….……

9.4 Does establishment employ a health or safety officer? Yes 1 No 2

(encircle appropriate code)

If "yes", state whether: full-time ..…… 1 part-time …… 2

Person to be contacted for queries or further information about this questionnaire

Name : ……

Status in business : ……

Telephone No : ……

E-mail : ……

Website Address : ……

Date : ……

Vision

To be a preferable source of official statistics in Tanzania

Mission

To facilitate informed decision-making process, through provision of relevant, timely and reliable user-driven statistical information, coordinating statistical activities and promoting the adherence to statistical methodologies and standards

For comments:

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